SECTION 5.0

Cumulative Impacts

5.0 CUMULATIVE IMPACTS

Both NEPA and CEQA require the consideration of cumulative impacts for the Proposed Action, Alternative1-Alternative Transmission Line Corridor, Alternative 2-Reduced Solar Energy Facility Site, and Alternative 3-No Action/No Project Alternative. CEQ regulations (40 CFR 1508.7) implementing NEPA define a cumulative impact.

> "Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."

NEPA Guidelines

Preparation of a cumulative impacts analysis is required under NEPA. A "cumulative impact" is an impact on the environment which results from the incremental impact of a Proposed Action when considered with other past, present, and reasonably foreseeable future actions regardless of which agency (Federal or non-Federal) or person undertakes such other actions (40 CFR Section 1508.7).

NEPA states that cumulative effects can result from "…individually minor but collectively significant actions taking place over a period of time" (40 CFR Section 1508.7). Under NEPA, both context and intensity are considered. When considering the intensity of an effect, it is necessary to consider "…whether the action is related to other actions with individually minor but cumulatively significant impacts. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts." 40 CFR Section 1508.27(b)(7).

CEQA Guidelines

CEQA Guidelines (Section 15355) states a similar definition of cumulative impact.

> "Cumulative impact refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.
>
> (a) The individual effects may be changes resulting from a single project or a number of separate projects; and
>
> (b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."

CEQA Guidelines Section 15130(b)(1) provides two alternative methods to analyze cumulative impacts:

List Method – A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency.

General Plan Projection Method – A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

For the EIR/EA the list method suggested in Section 15130(b)(1)(A) is followed. A list of past, present, and reasonably foreseeable future projects that would be expected to produce related or cumulative impacts has been used to determine cumulative effects.

The cumulative impacts analyses based on the cumulative projects and study area are described below by each resource area. The following describes the overall approach and context for the cumulative impact analysis. It also describes the study areas and relevant projects considered in the analyses for the different resource areas.

Cumulative Impact Analysis

The following describes the overall approach to the cumulative impact analysis provided below.

Cumulative Impact Approach

This EIR/EA evaluated cumulative impacts of the Proposed Action and Alternatives for each resource area, using the following steps:

(1) Define the geographic scope of cumulative impact analysis for each discipline, based on the potential area within which impacts of the Proposed Action could combine with those of other projects.

(2) Evaluate the effects of the Proposed Action in combination with past and present (existing) projects in the study area.

(3) Evaluate the effects of the Proposed Action with foreseeable future projects that occur within the area of geographic effect defined for each discipline.

Geographic Scope and Timeframe of the Cumulative Effects Analysis

The area of cumulative effect varies by resource. For example, air quality impacts tend to disperse over a large area, while traffic impacts are typically more localized. For this reason, the geographic scope for this analysis must be identified for each resource area.

The analysis of cumulative effects considers a number of variables including geographic (spatial) limits, time (temporal) limits, and the characteristics of the resource being evaluated. The geographic scope of each analysis is based on the topography surrounding the project site and the natural boundaries of the resource affected, rather than jurisdictional boundaries. The geographic scope of cumulative effects will

often extend beyond the scope of the direct effects of a Proposed Action, but not beyond the scope of the direct and indirect effects of that Proposed Action.

In addition, each project in a region will have its own implementation schedule, which may or may not coincide or overlap with the construction schedule for the Proposed Action. This is a consideration for short-term impacts from the Proposed Action. However, to be conservative, the cumulative analysis assumes that all projects in the cumulative scenario are built and operating during the operating lifetime of the Proposed Action.

Project Effects in Combination with Past, Present and Foreseeable Future Projects

Each discipline evaluates the impacts of the Proposed Action on top of the current baseline; the past, present (existing) and future projects near the project site. The CEQ states that the intensity, or severity, of the cumulative effects should consider the magnitude, geographic extent, duration and frequency of the effects. The magnitude of the effect reflects the relative size or amount of the effect; the geographic extent considers how widespread the effect may be; and the duration and frequency refer to whether the effect is a one-time event, intermittent, or chronic.

Reasonably foreseeable projects that could contribute to the cumulative effects scenario for the Proposed Action depend on the extent of resource effects, but could include projects in the immediate area as well as other projects in Imperial County, or the greater California desert.

5.1 Cumulative Projects

This cumulative impact analysis utilizes the list method, although the long-term, year 2030, traffic analysis is based on estimated traffic volumes in the County at that time horizon. Tables 5-1 and 5-2 provide a list of cumulative past, present, and foreseeable future projects within the near vicinity of the Proposed Action that have been identified within the BLM and County of Imperial jurisdiction, respectively. These projects include projects recently constructed, under construction, approved, but currently not built projects and projects that the development application has been submitted at the time of release of the Notice of Preparation. Figure 5-1 Cumulative Projects identifies the general location of these projects in relation to the proposed Imperial Valley Solar Energy Center South project site.

5.2 Cumulative Impact Analysis

5.2.1 Proposed Action

5.2.1.1 Visual Resources

A. Geographic Scope and Timeframe

The geographic scope for the analysis of cumulative impacts related to visual resources is within a distance of five or less miles of the Proposed Action.

TABLE 5-1
List of Cumulative Projects Located within the Jurisdiction of BLM in the Vicinity of the Proposed Action

Project Name	Description of Project	Impacts	Size/Location	Assumptions	Status
"S" Line Upgrade 230-kV Transmission Line Project (Imperial Irrigation District)	The "S" Line route runs the IID/San Diego Gas & Electric Imperial Valley Substation located on BLM lands. The project is located in Imperial County. The IID proposes to upgrade about 18 miles of the 230-kV overhead electrical transmission line by installing (+/-) 285 new double-circuit steel poles (including all existing polymer horizontal insulators) to replace the existing wood poles supporting a single 230-kV circuit. The execution plan is to complete the pole replacement and upgrades in three poles. The "S" Line would be upgraded at distinct locates with an assigned order of importance on the basis of system outages, structural reliability, risk, construction feasibility, and costs.	Impacts to the burrowing owl, Yuma clapper rail, and flat-tailed horned lizard. Mitigation reduces impacts to less than significant.	18 miles various composed segments. I-8, Hwy 86, 10 miles southwest of the City of El Centro, near Liebert and Wixom Toads, to the north and terminating at the EL Centro Switching Station on Dogwood Road new Villa Road.	For 18 miles of transmission line there are 108 acres of disturbance to BLM land (not all of this is BLM, 2.151 acres is on BLM land and the rest is on private).	End review 12/17/2009; MND filed with mitigation measures. ROW amended/renewed 03/2010.
Imperial Valley Solar (Stirling Energy Systems Two, LLC)	230-kV line (proposed in DEIS that is currently out on CEC website)-CACA-047740. Develop electric-generating facility with normal capacity of 709 megawatts using concentrated solar power. Constructed on approximately 6,500 acres (10 square miles). Construction done in two phases and will include operation and administration building, maintenance building, water treatment system, yard tanks, control building, and utilities and services for ancillary facilities and structures.	Visual resources are significant and unavoidable. All others less than significance after mitigation. Biological resources impact to 92.8 acres of Sonoran creosote brush scrub. Compensatory mitigation for 6,619.9 acres of FTHL suitable habitat. Loss of approximately 165 acres of waters of the U.S. and 840 acres of CDFG jurisdictional streambeds. Impacts to 328 known prehistoric and historical surface archaeological resources. Paleontological resources are documented and	Imperial Valley, 100 miles east of San Diego, 14 miles west of EL Centro, and 4 miles east of Ocotillo Wells.	Impacts of 6,571 acres of BLM lands and 93 acres of Yuha FTHL MA. Impacts to 840 acres of CDFG jurisdictional streambeds. Impacts to 328 known prehistoric and historical surface archaeological resources.	BLM ROD signed on 9/28/10. CEQ Decision on 9/29/10.

TABLE 5-1
List of Cumulative Projects Located within the Jurisdiction of BLM in the Vicinity of the Proposed Action

Project Name	Description of Project	Impacts	Size/Location	Assumptions	Status
		are likely. DESCP would mitigate potential storm water and sediment project-related impacts. Potential surface and groundwater impacts. Conversion of approximately 6,500 acres of land-mitigation is required.			
Sunrise 500-kV Line IV West Solar Farm Interconnection to Imperial Valley Substation (authorized, parallels the South West Powerlink 500-kV Line-CACA-047658	The project also includes new 230-kV and 138-kV transmission lines and a 230-kV substation and rebuilt 138-kV substation. The U.S. Bureau of Reclamation is the lead agency with BLM as a cooperating agency. IB substation is completely surrounded by BLM land (5 miles of new transmission lines in the Yuha Desert). Project will be 120 feet wide and is proposed to run northwest of the Imperial Valley Substation in the shortest route possible while retaining a buffer of a minimum of 500 feet away from private land in the area.	Primary issues include cultural (historic properties, Native American lands, and archeological resources), biological (Flat-tailed horned lizard and Western Burrowing Owl), and paleontological (fossils). 7.65 acres of permanent impact. 12.2 acres of temporary impact. 770 acres of BLM land.	Imperial Valley to Penasquitos. Located in the Yuha Basin Area of Critical Habitat in the southwestern portion of Imperial County. 8/9 miles southwest of the town of El Centro. Map included.	Impact to 180.1 acres of Yuha FTHL MA.	POWER Engineers final Environmental Impact Statement (EIS) complete. ROW authorized 02/2009
C Solar Development LLC West	CSOLAR Development, LLC West proposed 230-kV line (follows the Dixieland Line alignment) CACA-051644. 250 megawatts of electricity on 1,100 acres of previously disturbed private farm land. Will cross 0.5 mile of public land and then aligns to the existing Southwest Powerlink.	Proposed ROW lies within the Yuha Basin ACEC and in the Yuha Desert Management Area for the flat-tailed horned lizard. Will fully mitigate impacts. Permanently impact 9 acres of public lands (will use existing access to minimize impact). 69.9 acres of BLM land.	Follows the 230-kv lines from the international border going north alignment. Map in reference document.	Impacts to 13.7 acres of BLM Land and 3 acres of Yuha FTHL MA.	Draft plan for development complete 1/25/10. Currently working on NEPA analysis.
SDG&E Photovoltaic Solar Field	SDG&E proposed photovoltaic solar field. CACA-051625. Producing 12 to 14 megawatts of renewable energy.	To be determined in the plan of development (POD). 351.250 (this number will be reduced per	Located on approximately 100 acres of federal	Impacts to biological resources have	Application submitted for

TABLE 5-1
List of Cumulative Projects Located within the Jurisdiction of BLM in the Vicinity of the Proposed Action

Project Name	Description of Project	Impacts	Size/Location	Assumptions	Status
		their new POD) acres of impact to BLM land.	land directly adjacent to SDG&E's Imperial Valley substation.	yet to be assessed fully.* Impacts to 100 acres of BLM Lands.	transportation and utility systems.
North Gila to Imperial Valley #2 (Southwest Transmission Partners)	Southwest Transmission Partners double-circuit 500-kV line coming in from the east. Project would provide high-voltage transmission capacity in the southeastern U.S> to facilitate the development and interconnection of renewable energy. The total ROW will be approximately 1,903 acres of BLM Land. Project will be approximately 75 miles long. CACA51575.	Visual impacts would minimized to the extent possible by locating the structures of the new line adjacent to and with the same spacing as existing structures. Impacts to biological resources will result. 13,881.02 acres of BLM land.	Between North Gila Substation in Yuma County, Arizona and the Imperial Valley Substation in Imperial County. Project will follow the same route as existing Southwest Powerlink 500-kV line.	Impacts to 450 acres of BLM Lands and approximately 3 acres of Yuha FTHL MA disturbed.	STP is preparing a Plan of Development. Have not started on the NEPA analysis.
Dixieland Connection to IID Transmission System	Interconnection of IID's "S" Line from the IID Substation to the Imperial Valley Substation Route.	Lies in the Yuha Basin ACEC in the Yuha Desert Management Area for flat-tailed horned lizards and Western burrowing owl (impacts will be mitigated). Potential impacts to cultural and paleontological resources.	Follows the 230-kV lines from the international border going north alignment. Approximately 10 to 12 miles southwest of the City of El Centro, Imperial County.	20 acres of impacts to FTHL and Western burrowing owl. 34.2 acres of land disturbed.	Application filed and currently still in planning phases.
LS Power Centinela Solar Energy	The proposed development and operation of a solar power plan on private lands in southern Imperial County. The project will use photovoltaic technology and will deliver	Lies in the Yuha Basin ACEC in the Yuha Desert Management Area for flat-tailed horned lizards and Western burrowing owl	Located on approximately 2,067 acres of privately-owned	10 acres of land disturbed.	Application filed and currently working on NEPA Analysis.

TABLE 5-1
List of Cumulative Projects Located within the Jurisdiction of BLM in the Vicinity of the Proposed Action

Project Name	Description of Project	Impacts	Size/Location	Assumptions	Status
	electricity to the Imperial Valley Substation. Based on available technology the Project may be built with a total generation capability of up to 175 megawatts.	(impacts will be mitigated). Potential impacts to cultural and paleontological resources.	agricultural land in the western portion of the Imperial County, near the Imperial Valley Substation. The proposed transmission line corridor will follow the 230-kV lines from the international border going north alignment. Approximately total ROW would be 50 acres on BLM Lands		
Mount Signal Solar Farm	Proposed 82-LV line (follows the C Solar Imperial Solar Energy Center South alignment). Project would create 200 megawatts of electricity on 1,375 acres of private farmland in the Imperial Valley. Proposed transmission line route would parallel existing 230 kV lines and share transmission line with C Solar Imperial Valley Energy South project.	Lies in the Yuha Basin ACEC in the Yuha Desert Management Area for flat-tailed horned lizards and Western burrowing owl (impacts will be mitigated). Potential impacts to cultural and paleontological resources.	Located on 1,375 acres of privately owned land located 2.5 to 7.5 miles west of Calexico in southern Imperial County. Right-of-Way is located within BLM lands.		Application filed and currently working on NEPA Analysis.

*Impact are known for the resource specific studies have not been conducted.

Source: BLM, 2010.

TABLE 5-2
Cumulative Projects within the Jurisdiction of the County of Imperial

ID	Project Name/Agency ID	Location	Ownership	Status	Project Description
1	Las Aldeas Specific Plan	North of Adams Avenue, east of Austin Road and west of La Brucheri Road	Las Aldeas Specific Plan Westshore (Lerno) Development	City of El Centro working on staff report and condition of approval.	The Las Aldeas Specific Plan project is a mixed-use project of 2,156 single-family residential units, 84 multifamily residential units, 467 4-plex residential units, 27.95 acres of commercial zoning, 10.79 acres of light manufacturing zoning, 21.78 acres of park, 48.18 acres of retention basin, and 23.09 acres for two school sites.
2	Linda Vista	West side of Clark Road and I-8 and McCabe Road	City of El Centro Brent Grizzle		The Linda Vista project is a mixed-use project consisting of 182 single-family homes and a 6-acre commercial lot.
3	Desert Village #6	West of Clark Road between I-8 and Home Road	City of El Centro	Approved-granted extension of 2 years for filing final map of subdivision (Aug. 2008)	The Desert Village Project #6 consists of 95 single-family homes, 260 apartments, and 7.3 acres of commercial.
4	Commons	East side of Dogwood Avenue between I-8 and Danenberg Drive	City of El Centro		The Commons is a regional shopping center of 780,000 square feet.
5	Imperial Valley Mall	Southeast corner of Dogwood Road and Danenberg Road	City of El Centro		The Imperial Valley Mall consists of a regional shopping center of 1,460,000 square feet and 306 single-family houses.
6	Miller Burson	South of Ross Road and east of Austin Road	Miller Burson Development Design and Engineering	Responses to Draft EIR under preparation.	The Miller Burson project consists of a 570 single-family residential project.
7	Courtyard Villas	Northwest of I-8 and Austin Road	City of El Centro	EIR in Process.	The Courtyard Villas is a project consisting of 54 single-family homes.
8	Willow Bend (East) & Willow Bend (West)	Northeast corner of Clark Road and McCabe Road	City of El Centro		The Willow Bend (East) and Willow Bend (West) is a combined project of 216 single-family homes.

TABLE 5-2
Cumulative Projects within the Jurisdiction of the County of Imperial

ID	Project Name/Agency ID	Location	Ownership	Status	Project Description
9	Lotus Ranch	Southwest corner of I-8 and La Brucheri Road.	Gary McPhetrige	On hold per applicant request (June 2008)	The Lotus Ranch project is a residential project of 616 single-family homes and a 600 student elementary school.
10	Mosaic	South of SR-86 and bisected by Dogwood Ranch		EIR in Process	The Mosaic project is a residential project of 1,156 single-family units and 2.7 acres of commercial.
11	Hallwood/Calexico Place 111 & Casino	Southwest corner of SR-111 and Jasper Road	City of Calexico	Approved	The Calexico Place 111 and Casino project is a mixed-use project of residential, commercial, and casino.
12	Calexico Mega Park	Southeast corner of SR-111 and Jasper Road			The Calexico Mega Park project is a mixed-use project of a commercial and regional shopping center.
13	County Center II Expansion	Southwest corner of McCabe Road and Clark Road (8th Street in the City of El Centro)	County and ICOE	EIR in Process	The County Center II Expansion project is a mixed-use project of a commercial center, expansion of the Imperial County Office of Education, a Joint-use Teacher Training and Conference Center, Judicial Center, County Park, Jail Expansion, County Administrative Complex, Public Works Administration, and a County Administration Complex.
14	Desert Springs Resort	Northwest of the Boley Road and Westmoreland Road	Rob and Don Preston of the Barone Group	EIR in Process	The Desert Springs Resort project is a member's only resort community for motor sports, water sports, and recreational vehicle (RV) enthusiasts with a maximum occupancy of 210 days per year. The resort includes an estimated total of up to 411 water sports lots, 792 recreational vehicle lots, 32 estate lots, 150 vacation villas, and 100 garage villas for a project total of up to 1,475 units.
15	Mt. Signal	Eight miles southwest of the City of El Centro	MMR Power Solutions, LLC		The Mt. Signal project is a proposed 49.4 megawatt solar hybrid power station on roughly 974 acres.

TABLE 5-2
Cumulative Projects within the Jurisdiction of the County of Imperial

ID	Project Name/Agency ID	Location	Ownership	Status	Project Description
16	Coyote Wells (Wind Zero)	Ocotillo/Nomirage Area	Wind Zero Group, Inc.	Going to Board	The Coyote Wells (Wind Zero) project is a mixed-use, three-phase development on approximately 944 acres. The land uses include recreation, education and training, tourism, residential, storage, and hotel/resort.
17	Granite Carroll Sand and Gravel Mine	4 miles northwest of Ocotillo	Granite	Approved	The Granite Carroll Sand and Gravel Mine is a mining operation project.
18	Imperial Valley Solar Project (Formerly SES Solar Two)	4 miles east of Ocotillo	BLM	BLM's Record of Decision signed	The Imperial Valley Solar Project is an electric generating facility capable of producing approximately 750 megawatts of electricity on approximately 6,500 acres.
19	Imperial Solar Energy Center West	8 miles west of the City of El Centro		EIR/EA in Process	The Imperial Solar Energy Center West project is a photovoltaic solar facility capable of producing approximately 250 megawatts of electricity on approximately 1,130 acres.
20	Centinela Solar	Calexico	Centinela Solar LLC	EIR in Process	The Centinela Solar project is a photovoltaic solar energy facility capable of producing approximately 175 megawatts of electricity on approximately 2,057 acres.
21	Superstition Solar 1	Westmorland	Superstition Sunpeak	EIR/EIS in Process	The Surperstition Solar 1 project is a photovoltaic solar energy facility capable of producing 500 megawatts of electricity on approximately 5,516 acres.
22	Mount Signal Solar	Mt. Signal	8 Minute	In Process	The Mount Signal Solar project is a solar energy project located on approximately 1,375 acres of agriculture land and will produce approximately 200 megawatts of electricity.
23	Bethel Solar X, Inc	Calexico	Jim Doyle	In Process	The Bethel Solar X, Inc project is a solar-hybrid energy project that will produce approximately 49.40 megawatts of electricity on approximately 571 acres of land.

TABLE 5-2
Cumulative Projects within the Jurisdiction of the County of Imperial

ID	Project Name/Agency ID	Location	Ownership	Status	Project Description
24	Energy Solar Source I, LLC	Niland	Energy Source	In Process	The Energy Solar Source I project is a solar energy project that will produce 80 megawatts of electricity on approximately 480 acres of land.
25	Energy Solar Source II, LLC	Niland	Energy Source	In Process	The Energy Solar Source II project is a solar energy project that will produce 80 megawatts of electricity on 480 acres of land.
26	Salton Sea Solar Farm I	Calipatria	8 minute/81BM	County of Imperial just received	The Salton Sea Solar Farm I project is a solar energy project that will produce approximately 49.9 megawatts of electricity on approximately 320 acres of land.
27	Salton Sea Solar Farm II	Calipatria	8 minute/81BM	County of Imperial just received	The Salton Sea Solar Farm II project is a solar energy project that will produce approximately 100 megawatts of electricity on approximately 623 acres of land.
28	Calipat Solar Farm I	Calipatria	8 minute energy	County of Imperial just received	The Calipat Solar Farm I project is a solar energy project that will produce approximately 50 megawatts of electricity on approximately 280 acres of land.
29	Calipat Solar Farm II	Calipatria	8 minute energy	County of Imperial just received	The Calipat Solar Farm II project is a solar energy project that will produce approximately 50 megawatts of electricity on approximately 280 acres of land.
30	Midway Solar Farm I	Calipatria	8 minute	County of Imperial just received	The Midway Solar Farm I project is a solar photovoltaic project that will produce approximately 50 megawatts of electricity on approximately 326 acres of land.
31	Midway Solar Farm II	Calipatria	8 minute	County of Imperial just received	The Midway Solar Farm II project is a solar photovoltaic energy project that will produce approximately 155 megawatts of electricity on approximately 803 acres of land.

TABLE 5-2
Cumulative Projects within the Jurisdiction of the County of Imperial

ID	Project Name/Agency ID	Location	Ownership	Status	Project Description
32	IV Solar Company	Niland	Sun Peak Solar	Approved	The IV Solar Company project is a solar photovoltaic energy project that will produce approximately 23 megawatts of electricity on approximately 123 acres of land.
33	Chocolate Mountain	Niland	8 minute energy	Approved	The Chocolate Mountain is a solar photovoltaic energy project that will produce approximately 49.9 megawatts of electricity on approximately 320 acres of land.
34	Ocotillo Express	Ocotillo	Pattern Energy	EIR/EIS in Process	The Ocotillo Express project is wind energy project that will produce approximately 750 megawatts of electricity on approximately 15,000 acres of land.
35	Hudson Ranch II	Niland	HR Power II	MND in Process	The Hudson Ranch II project is a geothermal energy project that will produce approximately 49.9 megawatts of electricity on approximately 326.26 acres of land.
36	Black Rock Unit # 1 2 3	Niland	Calenergy	In Process	Black Rock Unit # 1 2 3 project is a geothermal energy project that will produce approximately 159 megawatts of electricity on approximately 160 acres of land.
37	Ram Power/Overlay	Brawley	Ram Power	EIR in Process	Ram Power Overlay is a geothermal energy project that will produce approximately 50 megawatts of electricity on approximately 27,875 acres of land.
38	Orni 19	Brawley	Ormat	EIR in Process	Orni 19 is a geothermal energy project that will produce approximately 49.9 megawatts of electricity on approximately 32 acres of land.

Source: BRG Consulting, Inc., 2010.

Cumulative Projects

1 Las Aldeas Specific Plan
2 Linda Vista
3 Desert Village #6
4 Commons
5 Imperial Valley Mall
6 Miller Burson
7 Courtyard Villas
8 Willow Bend (East) & West Willow Bend
9 Lotus Ranch
10 Mosaic
11 Hallwood/Calexico Place III & Casino
12 Calexico Mega Park
13 County Center II Expansion
14 Desert Springs Resort
15 Mt. Signal
16 Coyote Wells (Wind Zero)
17 Granite Carroll Sand and Gravel Mine
18 Imperial Valley Solar Project
19 Imperial Solar Energy Center West
20 Centinela Solar
21 Supersition Solar 1
22 Mount Signal Solar
23 Bethal Solar X, Inc.
24 Energy Source Solar I, LLC
25 Energy Source Solar II, LLC
26 Salton Sea Solar Farm I
27 Salton Sea Solar Farm II
28 Calipat Solar Farm I
29 Calipat Solar Farm II
30 Midway Solar Farm I
31 Midway Solar Farm II
32 IV Solar Company
33 Chocolate Mountain
34 Ocotillo Express
35 Hudson Ranch II
36 Black Rock Unit# 1 2 3
37 Ram Power/Overlay
38 Omi 19
39 "S" Line Upgrade
40 Imperial Valley Solar Stirling Energy Systems
41 Sunrise 500-kV Line
42 SDG&E Proposed Photovoltaic Solar Field
43 Southwest Transmission Partners
44 Dixieland Connection to IID Transmission System

Legend

- Cumulative Projects
- Solar Energy Facility Site

SALTON SEA

Imperial County

San Diego County

MEXICO

0 1 2 4 6 8 Miles

N

SOURCE: ESRI, 2010; BRG Consulting, Inc., 2010

11/30/10

BRG CONSULTING, INC.

Imperial Solar Energy Center South

Cumulative Projects

FIGURE 5-1

F:\projects\1009 Imperial Solar South\Draft EIR_EA\Chapter 5\Figure 5-1 Cumulative Projects.mxd

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B. Existing Conditions

Imperial County contains a wealth of scenic visual resources, which include desert areas, sand hills, mountains, and the Salton Sea.

Existing views onto the project site are available from the surrounding areas, specifically from SR-98, Pulliam Road, Anza Road and Cook Road. Due to the flat topography of the site and the surrounding area, besides the existing transmission lines located within the BLM transmission corridor, the access road and solar energy facility site are not readily visible from many viewpoints, and there are no unique topographical features associated with the site. Based on the visibility analysis, the site is only visible from immediately adjacent roads. The only portion of the project that is visible from more distant surrounding roads are the transmission lines and towers that currently traverse BLM lands.

C. Effects of the Proposed Action

The Proposed Action is not located in a designated scenic vista, nor has the County of Imperial General Plan designated the project site as an important visual resource. None of the roadways abutting or surrounding the project site are designated or proposed scenic roadways. No historic structures or significant scenic resources exist on the Proposed Action site. In addition, the Juan Bautista de Anza Matil Historic Trail is located approximately 5 miles west of the Proposed Action; this trail has a potential to be identified as a scenic resource; however, due to its distance from the project site and flat topography of the land within the project area, the project site is not readily visible from this trail. There is the potential that the transmission facilities could be visible along portions of the trail; however, the proposed transmission towers would be similar in use and scale as the existing towers and transmission facilities in the area. Therefore, development of the Proposed Action would not have a substantial adverse effect under CEQA on a scenic vista or damage scenic resources. In addition, none of the KOPs described in Section 3.1 of this EIR/EA are identified as a scenic vista.

Construction of the Proposed Action would alter the existing visual character of the area and its surroundings as a result of converting agricultural land to a solar energy facility. However, due to the flat topography of the site and surrounding area; location of the project site that is removed from most public views within an area surrounded by existing agriculture land; and, the installation of the perimeter fencing the equipment proposed to be installed on the project site would not be visible from any surrounding view point. In addition, the site would not be visible from any designated scenic resources or scenic highways. Furthermore, the Proposed Action would require approval of a CUP by the County of Imperial that would allow for the construction and operation of the proposed solar energy facility on a project site zoned for agriculture. As such, with approval of the CUP, the proposed solar energy facility would be consistent with the allowed uses on the agricultural land and would not conflict with the surrounding land uses. Therefore, this issue is considered less than significant under CEQA.

The proposed transmission line corridor will be located within a designated utility corridor and the transmission line will be similar to the existing transmission facilities located within this corridor, no impacts to visual resources within BLM lands would occur. Therefore, because the proposed transmission line corridor would be similar to the existing corridor and the project site is designated for such use, implementation of

the Proposed Action would not substantially degrade the existing visual character or quality of the site and its surroundings. Therefore, this issue is considered less than significant under CEQA.

Similar to the solar energy facility site, the access road is not visible from any KOPs or designated scenic highways or vistas. As such, the widening and use of this road would not result in a significant impact under CEQA to visual resources.

With regards to light and glare, as discussed in Section 4.1 of this EIR/EA, the Proposed Action would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area and would not impact users of the area (e.g., campers, stargazers, and recreational users of the desert, etc.) Therefore, no significant impact under CEQA is identified for this issue area.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

The following indicators were used to analyze cumulative visual resources impact, which are the same indicators used in EIR/EA Section 4.1 for the effects of the Proposed Action:

Indicator 1: *Have a substantial adverse effect on a scenic vista;*

Indicator 2: *Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway;*

Indicator 3: *Substantially degrade the existing visual character or quality of the site and its surroundings; and/or,*

Indicator 4: *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.*

Impact Analysis

As discussed in EIR/EA Section 4.1, no visual resources impacts under CEQA have been identified. Development of the Proposed Action in conjunction with the cumulative projects will gradually change the visual character of this portion of the Imperial Valley. However, the projects are being designed in accordance with the County of Imperial's General Plan and Land Use Ordinance; and applicable land use and management plans within the jurisdiction of the BLM. The visual character will change from rural, agricultural vistas to one with urban characteristics; however, these changes are not characterized as degradation and the area is not identified as having sensitive or significant visual resources. Where the Proposed Action will traverse BLM lands for development of the transmission lines, existing transmission lines exist. Additional lines would also be constructed in the area of the Proposed Action; however, these are consolidated within the designated Utility Corridor "N." The visual resource analysis demonstrates that the addition of an additional transmission line and towers in proximity to the existing facilities would not contribute to a significant visual impact. Furthermore, the proposed use and widening of the existing access road through BLM and private land is not visible from any designated scenic resources or KOPs and

the Proposed Action would not substantially change the visual character of the access road. Therefore, the Proposed Action would not result in cumulatively significant visual resource impact under CEQA.

5.2.1.2 Land Use

A. Geographic Scope and Timeframe

The geographic scope for the analysis of cumulative impacts related to land use is the County of Imperial and BLM lands.

B. Existing Conditions

The solar energy facility portion of the Proposed Action is located on undeveloped and agricultural lands, in the unincorporated Mt. Signal area of the County of Imperial. The proposed transmission line corridor would be located within BLM lands. The proposed access road traverses both BLM lands and private land, and is located on the west side of the Westside Main Canal. Land use plans and policies that are applicable to the project site include the County of Imperial General Plan, the County of Imperial Land Use Ordinance, Airport Land Use Compatibility Plan, Southern California Association of Government's Regional Comprehensive Plan and Regional Transportation Plan, Federal Aviation Regulations Part 77, Federal Land Management Act, 1976, California Desert Conservation Area Plan, Yuha Basin Area of Critical Environmental Concern (ACEC) Management Plan, and Flat-tailed Horned Lizard Rangewide Management Strategy.

C. Effects of the Proposed Action

As discussed in EIR/EA Section 4.2, the Proposed Action would conflict with the County's Agricultural goals and objectives, and the implementation of Mitigation Measure AR1, as identified in Section 4.9 of this EIR/EA, is required pursuant to County policy in order to reduce the impact to a level less than significant. The proposed solar energy facility is an allowed use within the existing zoning of the site, subject to a conditional use permit. As part of the Proposed Action, a CUP application has been filed, which would allow the uses of the Proposed Action to occur within the A-2-R and A-3 zones. Although a variance would be required to allow the height of the transmission towers, transmission towers are allowed within the existing zoning of the site. As such, the Proposed Action is consistent with all other land use plans for the project area. The transmission towers are proposed to be located within Utility Corridor "N" and no plan amendment would be required. In addition, the proposed widening and use of the existing access road, would require a right of way permit from the BLM and secured easements from property owners; however, use of this road for construction and maintenance would not prohibit or diminish the existing vehicular use of the road by others. Therefore, no land use compatibility impact under CEQA has been identified.

Potential impacts to biological resources will occur with implementation of the Proposed Action. However, Mitigation Measures B3 and B4, as identified in Section 4.12 of this EIR/EA, have been identified to address potential direct and indirect impacts under CEQA to biological resources located within the Yuha Basin Area of Critical Environmental Concern Management Plan.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

The following indicators were used to analyze cumulative land use impact, which are the same indicators used in EIR/EA Section 4.2 for the effects of the Proposed Action:

Indicator 1: *Physically divide an established community;*

Indicator 2: *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or Land Use Ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; and/or,*

Indicator 3: *Conflict with the any applicable habitat conservation plan or natural community conservation plan.*

Impact Analysis

As discussed in EIR/EA Section 4.2 of this EIR/EA, the Proposed Action would conflict with the County's Agricultural goals and objectives and has the potential to impact biological resources within the Yuha Basin ACEC. However with implementation of Mitigation Measures AR1, B3 and B4, as identified in Sections 4.9 and 4.12 of this EIR/EA, these impacts under CEQA would be reduced to a level less than significant. The Proposed Action is consistent with all other land use plans for the project area. Therefore, no land use compatibility impact has been identified, and implementation of the Proposed Action would not contribute to a significant cumulative land use compatibility impact in the County of Imperial. The Proposed Action, in conjunction with other development in Imperial County, is not anticipated to result in a significant cumulative land use impact under CEQA.

5.2.1.3 Transportation/Circulation

A. Geographic Scope and Timeframe

The geographic scope of the cumulative analysis for transportation/circulation is based on the roadways in the vicinity of the project site that may be impacted by traffic generated by the Proposed Action and cumulative projects, which include Interstate 8 (I-8), Brockman Road, Drew Road, Forrester Road, McCabe Road, Pulliam Road, and State Route 98 (SR-98). Figure 3.3-1 depicts the existing roadways conditions of the roadways that were analyzed in the Traffic Impact Analysis (Appendix B of this EIR/EA).

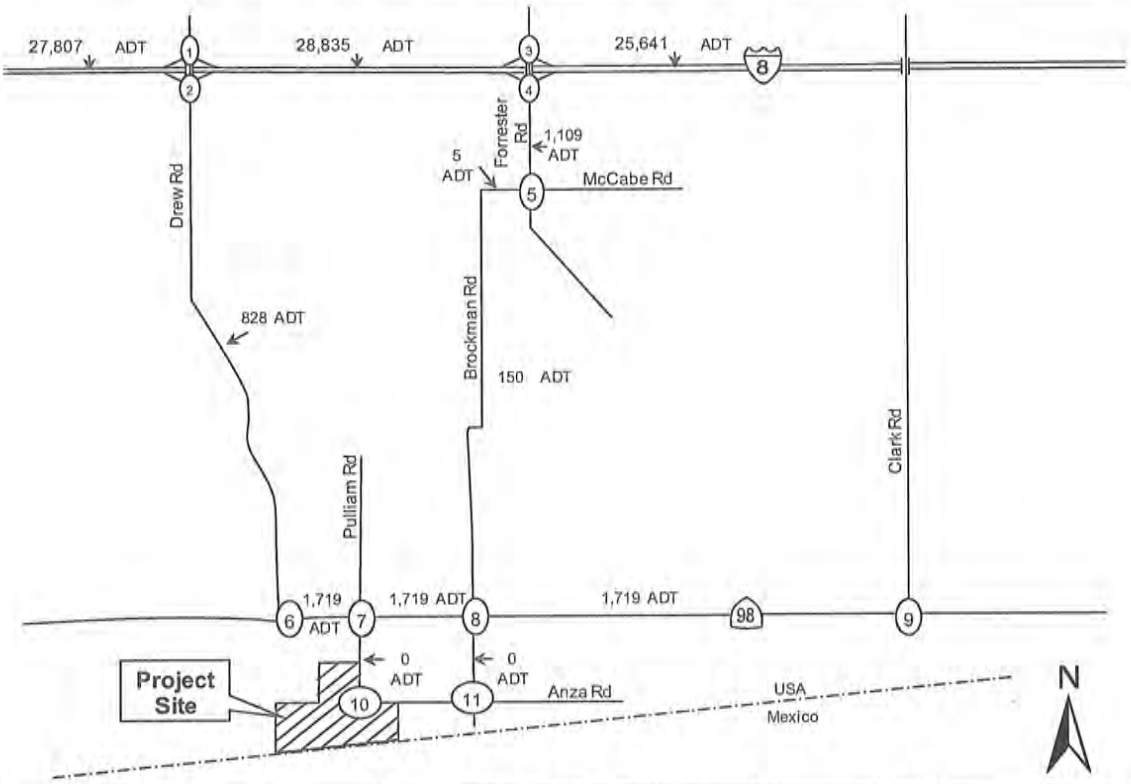
The Traffic Impact Analysis identifies cumulative projects in the vicinity of the project site that would potentially add traffic to the study area roadways and contribute to a cumulative impact. These projects are expected to be developed by Year 2012. In addition, for the traffic generating cumulative projects, for the forecasted Horizon Year (2030) conditions, a growth factor of 7.37 percent was added, which applied to the sum of the other cumulative traffic volumes. The cumulative projects are listed above in Section 5.1.

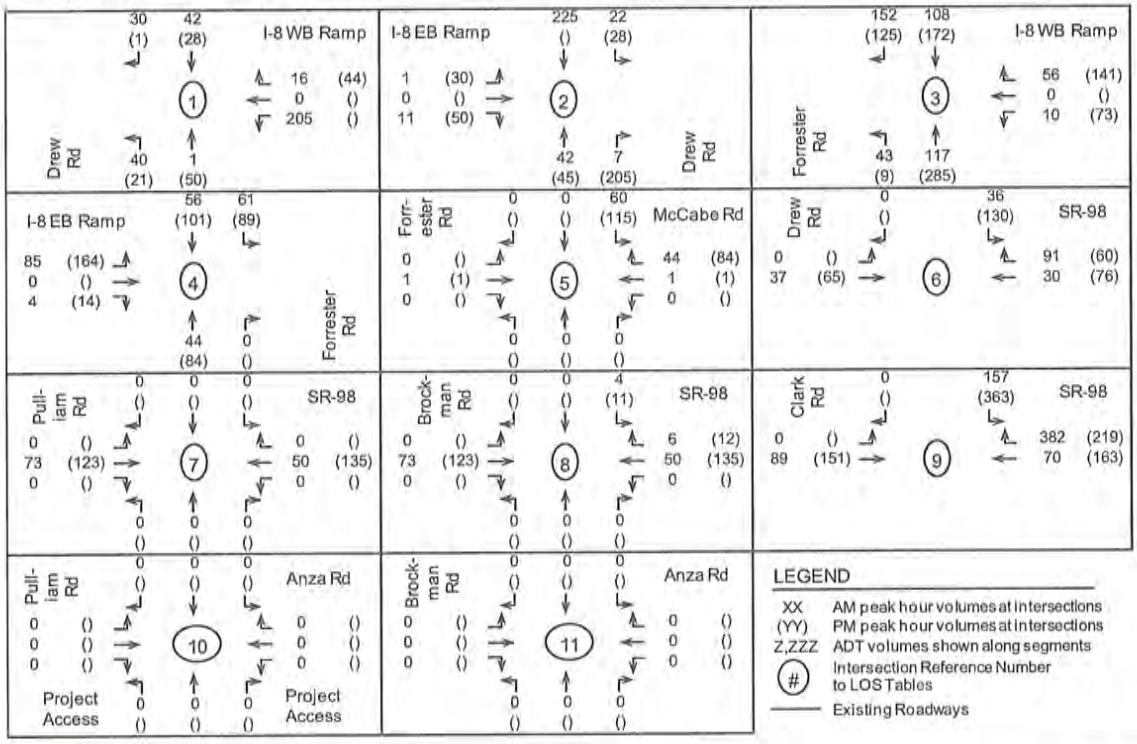
Implementation of the Proposed Action would generate approximately 680 ADT during construction and 10 to 15 ADT during operations and maintenance of the project. Table 5-3 summarizes the trip generation for the cumulative projects. Figure 5-2 depicts the cumulative project (new development) traffic volumes. The majority of the project trips would be generated during the short-term construction phase of the project as compared to the operations of the project, which generate a minimal level of ADT. As such, potential cumulative impacts of the Proposed Action are anticipated to occur within the short-term timeframe (Year 2012) and not within the long-term timeframe (Year 2030). However, an analysis of the addition of the Proposed Action with other cumulative projects within the short-term (Year 2012) and long-term (Horizon Year 2030) are provided below.

TABLE 5-3
Cumulative Project Trip Generation

Project	Average Daily Trips	AM Peak Hour	PM Peak Hour
1. Las Aldeas Specific Plan	41,553	2,860	4,227
2. Linda Vista	7,175	252	676
3. Desert Village #6	8,740	331	818
4. Commons	20,648	430	1,943
5. Imperial Valley Mall	47,300	1,095	4,440
6. Miller Burson	5,455	427	576
7. Courtyard Villas	517	40	56
8. Willow Bend (East) & West Willow Bend	2,067	162	218
9. Lotus Ranch	5,830	529	605
10. Mosaic	11,585	845	1,157
11. Hallwood/Calexico 111 Place & Casino	59,285	3,286	6,071
12. Calexico Mega Park	51,338	2,054	4,903
13. County Center II Expansion	24,069	2,581	2,242
14. Desert Springs Resort	7,275	383	714
15. Mt. Signal	632	310	301
16. Coyote Wells (Wind Zero)	538	134	134
17. Granite Carroll Sand and Gravel Mine	834	-	-
18. Imperial Valley Solar Project (Formerly SES Solar Two)	1,736	772	772
19. Imperial Solar Energy Center West	750	306	315

Source: LOS Engineering, Inc., 2010.





SOURCE: LOS Engineering, Inc., 2010

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Cumulative Project New Development Volumes

FIGURE 5-2

B. Existing Conditions

As discussed in Section 3.3 of this EIR/EA, the affected environment for transportation/circulation is based on the existing traffic conditions of the roadways within the vicinity of the project site. Based on analysis provided in the Traffic Impact Analysis (Appendix B of this EIR/EA) during the existing Year 2008 conditions all intersections operate at LOS C or better during both the weekday AM and PM peak hours; all roadway segments currently operate at LOS A; and, all freeway segments operate at LOS B or better. During the Year 2012 conditions, all intersections operate at LOS C or better during both the weekday AM and PM peak hours; all roadway segments operate at LOS B or better; and, all freeway segments operate at LOS B or better.

C. Effects of the Proposed Action

As discussed in Section 4.3 of this EIR/EA, the Proposed Action is anticipated to start construction in September 2011 and be completed by January 2013. The construction phase of the project would generate approximately 680 ADT, whereas, the operations and maintenance of the project is estimated to generate 10 to 15 ADT. As such, the higher and more conservative construction trip generation, although short-term in nature, was used to determine potential project impacts. Therefore, construction related traffic was added to the Year 2012 conditions to analyze short-term construction related impacts. As discussed in Section 4.3 of this EIR/EA, with the addition of the construction traffic onto Year 2012 conditions, no direct impacts under CEQA to intersections or roadway segments were identified.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

The following indicators were used to analyze cumulative transportation/circulation impact, which are the same indicators used in EIR/EA Section 4.3 for the effects of the Proposed Action:

Indicator 1: *Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections);*

Indicator 2: *Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways;*

Indicator 3: *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);*

Indicator 4: *Result in inadequate emergency access;*

Indicator 5: *Result in inadequate parking capacity; or,*

Indicator 6: *Conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).*

Impact Analysis

Year 2012 plus Cumulative Conditions

This scenario accounts for the anticipated cumulative traffic added onto year 2012 conditions with Drew Road around I-8 open for travel. Year 2012 plus cumulative volumes are depicted in Figure 5-3. Intersection, segment, and freeway LOS are provided in Tables 5-4, 5-5, and 5-6, respectively. Under Year 2012 plus cumulative conditions, the study intersections and roadways were calculated to operate at LOS C or better, except for:

- Intersection of Forrester Road to I-8 EB Ramp (LOS F PM); and,
- Intersection of SR-98 at Clark Road (LOS F PM).

Year 2012 Plus Cumulative Plus Project Conditions

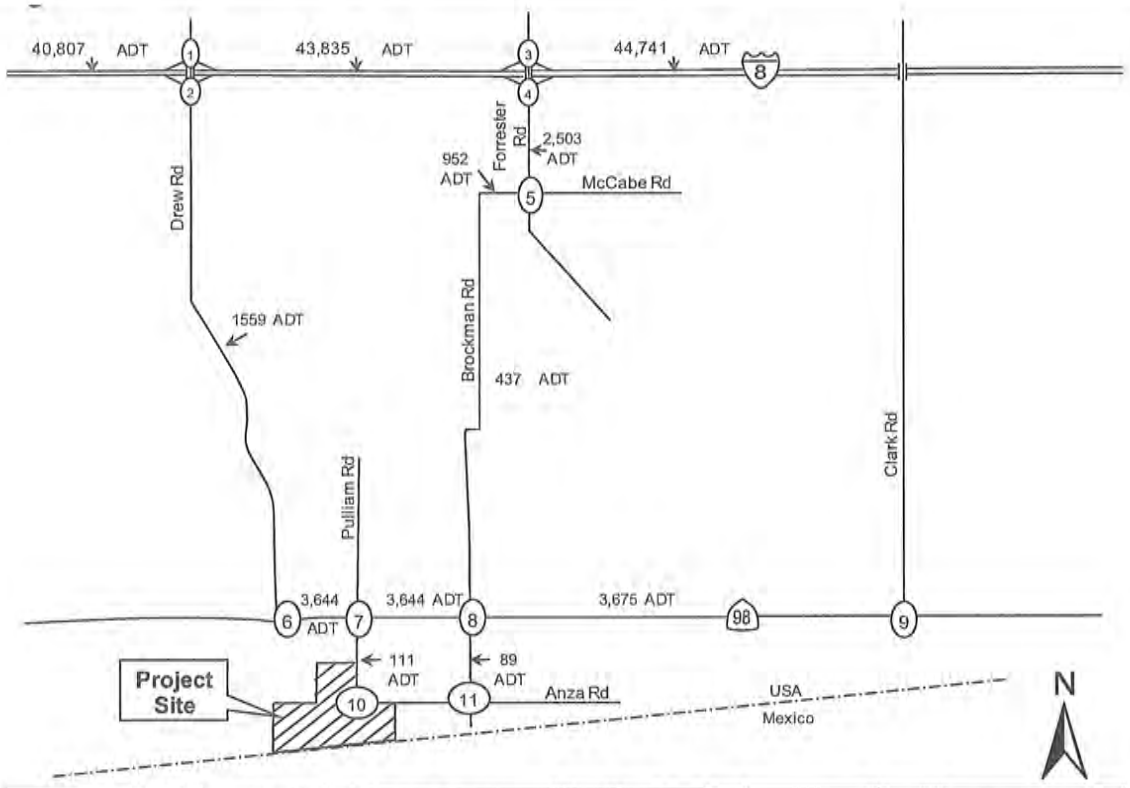
This scenario accounts for the anticipated project construction traffic added onto the Year 2012 condition with Drew Road around I-8 open for travel. Year 2012 plus project construction volumes are depicted in Figure 5-4. Intersection, segment, and freeway LOS are provided in Tables 5-7, 5-8, and 5-9, respectively.

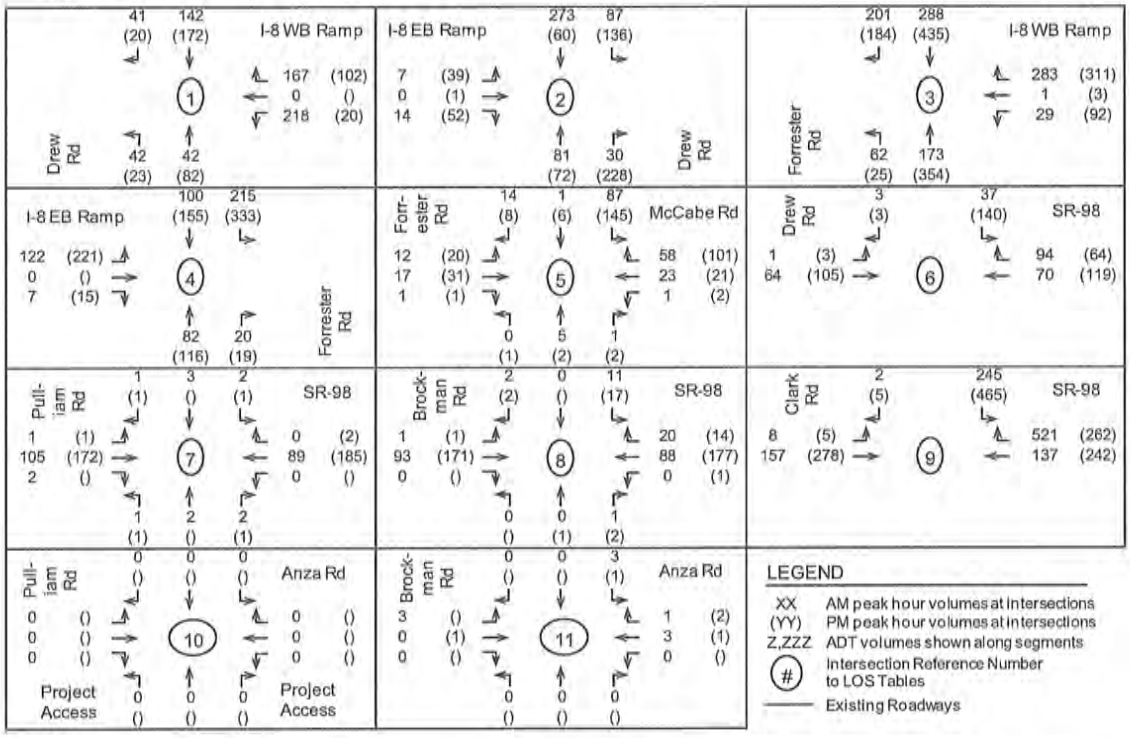
Under Year 2012 plus cumulative plus project conditions, the study area intersections and roadways were calculated to operate at LOS C or better, except for:

- Intersection of Forrester Road to I-8 EB Ramp (LOS F, PM); and,
- Intersection of SR-98 at Clark Road (LOS F, PM).

The addition of the Proposed Action's trips to the Year 2012 plus cumulative conditions would result in a cumulatively significant impact under CEQA to both of the intersections noted above. The cumulative impacts to these intersections are due to background traffic growth from surrounding new development. If a majority of the proposed new development does not materialize, then the cumulatively impacted intersections may continue to operate at acceptable levels of service and would not require mitigation. Therefore, it is recommended that a mitigation monitoring and reporting program be established to determine if the two aforementioned intersections would operate at unacceptable LOS starting in year 2012 and beyond annually until the project construction is completed. If unacceptable LOS is document in year 2012, then fair share or payment of applicable Transportation Impact fee is recommended as the mitigation measure. As such, with the implementation of Mitigation Measure CUM1, these impacts would be reduced to a level less than significant under CEQA.

Table 5-10 provides a summary of the cumulatively impacted intersections with operations before and after proposed mitigation with fair share percentages. The LOS and fair share calculations are provided in Appendix B of this EIR/EA.





SOURCE: LOS Engineering, Inc., 2010

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Year 2012 + Cumulative Volumes

FIGURE 5-3

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TABLE 5-4
Year 2012 With Cumulative Intersection LOS

Intersection and (Analysis) (1)	Movement	Peak Hour	Year (2012) + Cumulative	
			Delay	LOS
Drew Road at	Minor	AM	12.1	B
I-8 WB Ramp	Leg	PM	9.5	A
Drew Road at	Minor	AM	11.4	B
I-8 WB Ramp	Leg	PM	11.6	B
Drew Road at	Minor	AM	12.2	B
I-8 EB Ramp	Leg	PM	20.9	C
Forrester Road at	Minor	AM	22.9	C
I-8 WB Ramp	Leg	PM	268.0	F
Forrester Road at	Minor	AM	9.7	A
McCabe Road	Leg	PM	10.8	B
SR-98 at	Minor	AM	9.8	A
Drew Road	Leg	PM	11.5	B
SR-98 at	Minor	AM	9.9	A
Pulliam Road	Leg	PM	10.3	B
SR-98 at	Minor	AM	9.8	A
Brockman Road	Leg	PM	11.4	B
SR-98 at	Minor	AM	24.3	C
Clark Road	Leg	PM	178.4	F
Pulliam Road at	Minor	AM	0.0	A
Anza Road	Leg	PM	0.0	A
Brockman Road at	Minor	AM	7.2	A
Anza Road	Leg	PM	8.5	A

Notes: (1) Intersection Control – (S) Signalized, (U) Unsignalized; (2) Delay – HCM Average Control Delay in seconds; (3) LOS = Level of Service.

Source: LOS Engineering, Inc., 2010.

TABLE 5-5
Year (2012) Without and With Cumulative Segment LOS

Segment	Classification	Year 2012				Cumulative	Year 2012 + Cumulative				
		Daily Volume	LOS C Capacity	V/C	LOS	Daily Volume	Daily Volume	LOS C Capacity	V/C	LOS	Change in V/C
Drew Road											
I-8 to SR-98	Prime Arterial (2U)	731	7,100	0.10	A	828	1,559	7,100	0.22	A	0.117
Brockman Road											
McCabe Rd to SR-98	Major Collector (2U)	287	7,100	0.04	A	150	437	7,100	0.06	A	0.021
SR-98 to Anza Rd	Not Listed (2U)	89	7,100	0.01	A	0	89	7,100	0.01	A	0.000
Forrester Road											
I-8 to McCabe Rd	Prime Arterial (2U)	1,394	7,100	0.20	A	1,109	2,503	7,100	0.35	B	0.156
McCabe Road											
Brockman Rd to Forrester Rd	Major Collector (2U)	947	7,100	0.13	A	5	952	7,100	0.13	A	0.001
Pulliam Road											
SR-98 to Anza Rd	Not Listed (2U)	111	7,100	0.02	A	0	111	7,100	0.02	A	0.000
SR-98											
Drew Rd to Pulliam Rd	State Highway (2U)	1,925	7,100	0.27	B	1,719	3,644	7,100	0.51	B	0.242
Pulliam Rd to Brockman Rd	State Highway (2U)	1,925	7,100	0.27	B	1,719	3,644	7,100	0.51	B	0.242
Brockman Rd to Clark Rd	State Highway (2U)	1,925	7,100	0.28	B	1,719	3,675	7,100	0.52	B	0.242

Notes: Classification based on 1/29/08 Circulation and Scenic Highways Element. 2U = 2 lane undivided roadway. Daily volume is a 24 hour volume. LOS = Level of Service. LOS is based on actual number of lanes currently constructed. V/C = Volume to Capacity ratio. Impact? = type of impact (none, cumulative, or direct).

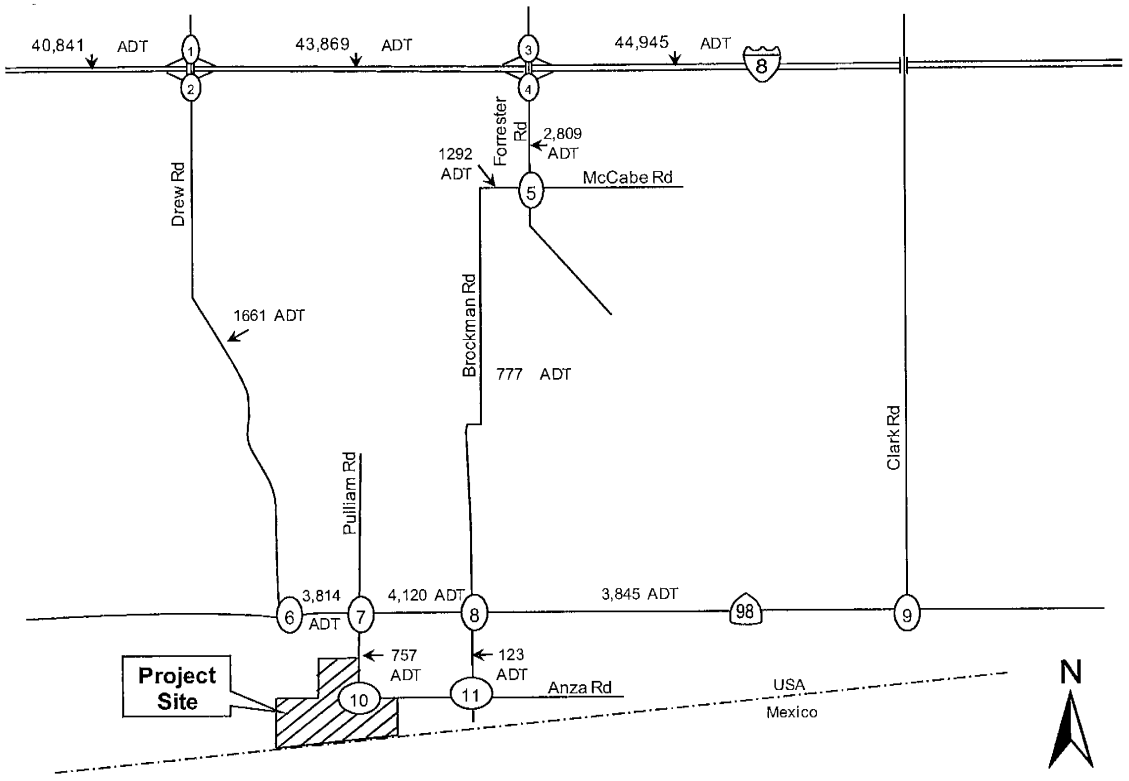
Source: LOS Engineering, Inc., 2010.

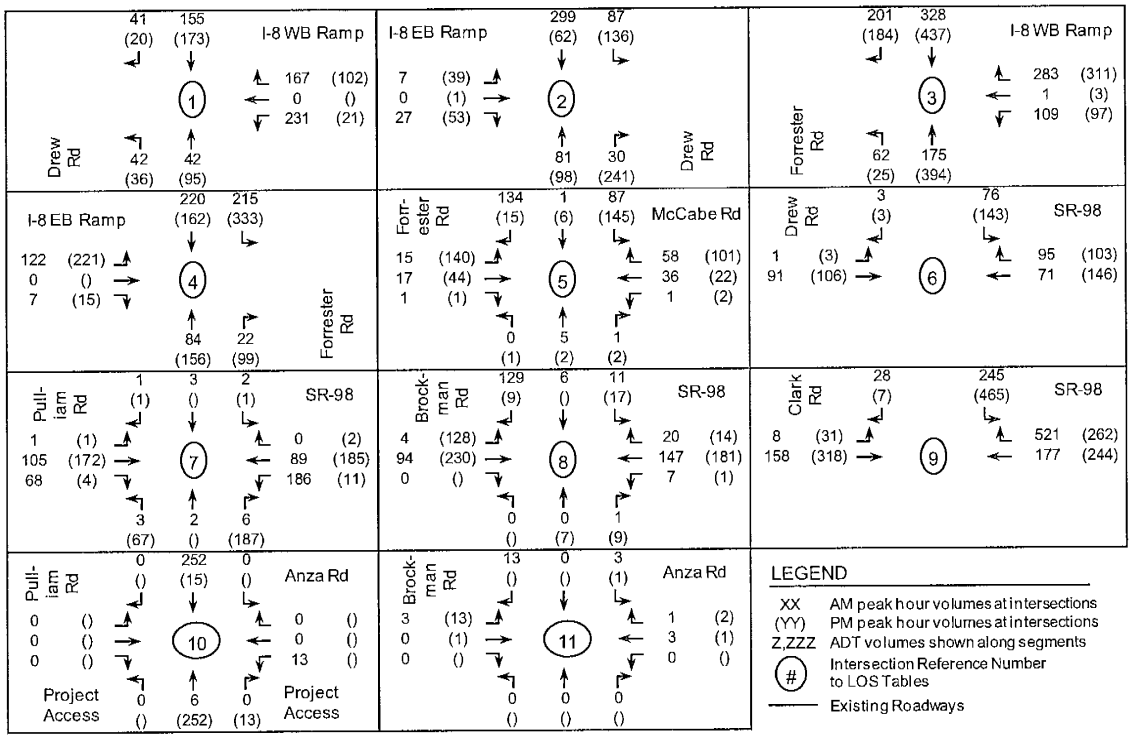
TABLE 5-6
Year (2012) Without and With Cumulative Freeway LOS
(Drew Road Interchange Closed)

Freeway Segment	I-8 Dunaway Road to Drew Road				I-8 Drew Road to Forrester Road				I-8 Forrester Road to Imperial Avenue			
Forecasted Year 2012												
ADT	13,000				15,000				19,100			
Peak Hour	AM		PM		AM		PM		AM		PM	
Direction	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
Number of Lanes	2	2	2	2	2	2	2	2	2	2	2	2
Capacity (1)	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700
K Factor (2)	0.1076	0.0963	0.0917	0.1517	0.1076	0.0963	0.0917	0.1517	0.1076	0.0963	0.0917	0.1517
D Factor (3)	0.2616	0.7384	0.4419	0.5581	0.2616	0.7384	0.4419	0.5581	0.2616	0.7384	0.4419	0.5581
Truck Factor (4)	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376
Peak Hour Volume	437	1,104	629	1,314	504	1,273	726	1,516	642	1,621	924	1,931
Volume to Capacity	0.093	0.235	0.134	0.280	0.107	0.271	0.154	0.323	0.137	0.345	0.197	0.411
LOS	A	A	A	A	A	A	A	B	A	B	A	B
Cumulative Pk Hr Vol	26	825	840	34	118	416	411	178	61	66	89	214
2012 + Cumulative												
Peak Hour Volume	463	1,929	1,469	1,348	622	1,689	1,137	1,694	703	1,687	1,013	2,145
Volume to Capacity	0.098	0.410	0.313	0.287	0.132	0.359	0.242	0.360	0.150	0.359	0.216	0.456
LOS	A	B	B	A	A	B	A	B	A	B	A	B

Notes: ADT = Average Daily Trips; LOS = Level of Service; (1) Capacity of 2,350 pcphpl from CALTRANS' Guide for the Preparation of Traffic Impact Studies, December 2002. (2) Latest K factor from Caltrans (based on 2007 report), which is the percentage of AADT in both directions. (3) Latest D factor from Caltrans (based on 2007 report), which when multiplied by K and ADT will provide peak hour volume. (4) Latest truck factor from Caltrans (based on 2007 report).

Source: LOS Engineering, Inc., 2010.





SOURCE: LOS Engineering, Inc., 2010

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Year 2012 + Cumulative + Project Volumes

FIGURE 5-4

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TABLE 5-7
Year (2012) + Cumulative Without and With Project Intersection LOS

Intersection and (Control)[1]	Movement	Peak Hour	Year (2012) + Cumulative		Year (2012) + Cumulative + Project			
			Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delta[4]	Impact[5]
Drew Road at	Minor	AM	12.1	B	12.6	B	0.5	None
I-8 WB Ramp	Leg	PM	9.5	A	9.7	A	0.2	None
Drew Road at	Minor	AM	11.4	B	12.3	B	0.9	None
I-8 WB Ramp	Leg	PM	11.6	B	11.9	B	0.3	None
Drew Road at	Minor	AM	12.2	B	15.5	C	3.3	None
I-8 EB Ramp	Leg	PM	20.9	C	23.6	C	2.7	None
Forrester Road at	Minor	AM	22.9	C	30.8	D	7.9	Cumulative
I-8 WB Ramp	Leg	PM	268.0	F	392.7	F	124.7	Cumulative
Forrester Road at	Minor	AM	9.7	A	10.3	B	0.6	None
McCabe Road	Leg	PM	10.8	B	16.1	C	5.3	None
SR-98 at	Minor	AM	9.8	A	10.3	B	0.5	None
Drew Road	Leg	PM	11.5	B	12.2	B	0.7	None
SR-98 at	Minor	AM	9.9	A	15.2	C	5.3	None
Pulliam Road	Leg	PM	10.3	B	13.1	B	2.8	None
SR-98 at	Minor	AM	9.8	A	10.3	B	0.5	None
Brockman Road	Leg	PM	11.4	B	15.3	C	3.9	None
SR-98 at	Minor	AM	24.3	C	29.5	D	5.2	Cumulative
Clark Road	Leg	PM	178.4	F	281.9	F	103.5	Cumulative
Pulliam Road at	Minor	AM	0.0	A	10.5	B	10.5	None
Anza Road	Leg	PM	0.0	A	0.0	A	0.0	None
Brockman Road at	Minor	AM	7.2	A	7.2	A	0.0	None
Anza Road	Leg	PM	8.5	A	8.7	A	0.2	None

Notes: (1) Intersection Control – (S) Signalized, (U) Unsignalized; (2) Delay – HCM Average Control Delay in seconds; (3) LOS = Level of Service; (4) Delta is the increase in delay from project; (5) Direct Impact? (yes or no).

Source: LOS Engineering, Inc., 2010.

TABLE 5-8
Year (2012) Plus Cumulative Without and With Project Segment LOS

Segment	Classification	Year 2012 + Cumulative				Project	Year 2012 + Cumulative + Project				
		Daily Volume	LOS C Capacity	V/C	LOS	Daily Volume	Daily Volume	LOS C Capacity	V/C	LOS	Impact?
Drew Road											
I-8 to SR-98	Prime Arterial (2U)	1,559	7,100	0.22	A	102	1,661	7,100	0.23	A	None
Brockman Road											
McCabe Rd to SR-98	Major Collector (2U)	437	7,100	0.06	A	340	777	7,100	0.11	A	None
SR-98 to Anza Rd	Not Listed (2U)	89	7,100	0.01	A	34	123	7,100	0.02	A	None
Forrester Road											
I-8 to McCabe Rd	Prime Arterial (2U)	2,503	7,100	0.35	B	306	2,809	7,100	0.40	B	None
McCabe Road											
Brockman Rd to Forrester Rd	Major Collector (2U)	952	7,100	0.13	A	340	1,292	7,100	0.18	A	None
Pulliam Road											
SR-98 to Anza Rd	Not Listed (2U)	111	7,100	0.02	A	646	757	7,100	0.11	A	None
SR-98											
Drew Rd to Pulliam Rd	State Highway (2U)	3,644	7,100	0.51	B	170	3,814	7,100	0.54	B	None
Pulliam Rd to Brockman Rd	State Highway (2U)	3,644	7,100	0.51	B	476	4,120	7,100	0.58	C	None
Brockman Rd to Clark Rd	State Highway (2U)	3,675	7,100	0.52	B	170	3,845	7,100	0.54	B	None

Notes: Classification based on 1/29/08 Circulation and Scenic Highways Element. 2U = 2 lane undivided roadway. Daily volume is a 24 hour volume. LOS = Level of Service. LOS is based on actual number of lanes currently constructed. V/C = Volume to Capacity ratio. Impact? = type of impact (none, cumulative, or direct).

Source: LOS Engineering, Inc., 2010.

TABLE 5-9
Year (2012) Plus Cumulative Without and With Project Freeway LOS

Freeway Segment	I-8 Dunawy Road to Drew Road				I-8 Drew Road to Forrester Road				I-8 Forrester Road to Imperial Avenue			
Forecasted Year 2012												
ADT	13,000				15,000				19,100			
Peak Hour	AM		PM		AM		PM		AM		PM	
Direction	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
Number of Lanes	2	2	2	2	2	2	2	2	2	2	2	2
Capacity (1)	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700
K Factor (2)	0.1076	0.0963	0.0917	0.1517	0.1076	0.0963	0.0917	0.1517	0.1076	0.0963	0.0917	0.1517
D Factor (3)	0.2616	0.7384	0.4419	0.5581	0.2616	0.7384	0.4419	0.5581	0.2616	0.7384	0.4419	0.5581
Truck Factor (4)	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376
Peak Hour Volume	437	1,104	629	1,314	504	1,273	726	1,516	642	1,621	924	1,931
Volume to Capacity	0.093	0.235	0.134	0.280	0.107	0.271	0.154	0.323	0.137	0.345	0.197	0.411
LOS	A	A	A	A	A	A	A	B	A	B	A	B
Cumulative + Project	39	825	841	47	118	429	424	179	63	159	182	220
2012 + Cumulative + Project												
Peak Hour Volume	476	1,929	1,470	1,361	622	1,702	1,150	1,695	705	1,780	1,106	2,151
Volume to Capacity	0.101	0.410	0.313	0.290	0.132	0.362	0.245	0.361	0.150	0.379	0.235	0.458
LOS	A	B	B	A	A	B	A	B	A	B	A	B
Increase in V/C	0.003	0.000	0.000	0.003	0.000	0.003	0.003	0.000	0.000	0.020	0.020	0.001
Impact?	None	None	None	None	None	None	None	None	None	None	None	None

Notes: ADT = Average Daily Trips; LOS = Level of Service; (1) Capacity of 2,350 pcphpl from CALTRANS' Guide for the Preparation of Traffic Impact Studies, December 2002. (2) Latest K factor from Caltrans (based on 2007 report), which is the percentage of AADT in both directions. (3) Latest D factor from Caltrans (based on 2007 report), which when multiplied by K and ADT will provide peak hour volume. (4) Latest truck factor from Caltrans (based on 2007 report).

Source: LOS Engineering, Inc., 2010.

TABLE 5-10
Impact Summary

Cumulative Impact Location	Peak Hour	Without Mitigation 2010 + Cumulative + Project			Recommended Mitigation	With Mitigation 2012 + Cumulative + Project			Fair Share % Construction Traffic	Fair Share % Operations Traffic
		Delay	LOS	Impact		Delay	LOS	Impact		
4) Forrester Rd	AM	30.8	D	Cumulative	Install Traffic	22.3	C	None	27.5%	0.6%
at I-8 EB Rmp	PM	392.7	F	Cumulative	Signal	25.6	C	None		
9) SR-98 at	AM	29.5	D	Cumulative	Install Traffic	11.1	C	None	8.0%	0.1%
Clark Rd	PM	281.9	F	Cumulative	Signal	19.3	C	None		

Source: LOS Engineering, Inc., 2010.

CUM1 Intersections of Forrester Road at I-8 EB Ramp and SR-98 at Clark Road

A Mitigation Monitoring and Reporting Program shall be established to determine if the two intersections would operate at un-acceptable LOS starting in Year 2012 and beyond annually until the project construction is completed. If un-acceptable LOS is documented in Year 2012, then a fair share contribution or payment of applicable Transportation Impact Fee is recommended as the mitigation measure. It should be noted that the fair share participation is based on the project's construction traffic that is significantly higher than the project's traffic after completion of construction.

If un-acceptable LOS is not documented at the two cumulatively impacted intersections based on the mitigation monitoring and reporting program, then the applicant's fair share contribution (based on construction traffic) should be refunded. If the County desires some form of mitigation, then it is recommended that the fair share contribution (based on permanent operation employees) be conditioned.

Horizon Year (2030) Plus Project Conditions

Three sources were reviewed for Horizon Year 2030 volumes and the highest of the three was used to calculate segment operations under 2030 conditions. The three sources included:

- Existing plus cumulative plus project as previously calculated above.
- Existing forecasted to Year 2030 by applying a growth factor of 73.7 percent. This growth facto was calculated by compounding the previously defined annual growth rate of 2.8 percent for 20 years (from year 2010 to year 2030). The project traffic was added on top of this forecast.
- The *Imperial County Circulation and Scenic Highway Element Update* volumes to which the Horizon Year 2030 volumes were interpolated from the listed 2025 and 2050 volumes. The *Imperial County Circulation and Scenic Highway Element Update* listed volumes, and LOS lookup tables are included in Appendix B of this EIR/EA.

The Horizon Year plus project segment operations are provided in Table 5-11. Under Horizon Year 2030 plus project conditions, the study area roadway segments were calculated to operate at LOS C or better based on the study segments being built to Year 2030 roadway classifications. Therefore, no significant impact under CEQA is identified for this issue area.

In summary, implementation of the Proposed Action would result in a significant, but mitigable cumulative transportation/circulation impact under CEQA.

TABLE 5-11
Horizon Year Segment LOS

Segment	Circulation and Scenic Highways Element Classification	Source 1: Existing+ Cumulative + Project	Source 2: Year 2010 at 2.8%/ys to Year 2030	Source 3: Year 2030 Daily Volume Interpolated	Year 2030 highest of the 3 noted to the left	LOS C Capacity at Year 2030 Classification	V/C	LOS
Drew Road								
I-8 to SR-98	Prime Arterial	1,661	1,202	Vol. Not Listed	1,661	44,600	0.04	A
Brockman Road								
McCabe Rd to SR-98	Mjr Collector	777	472	Vol. Not Listed	777	27,400	0.03	A
SR-98 to Anza Road	Not Listed	123	146	Vol. Not Listed	146	7,100	0.02	A
Forrester Road								
I-8 to McCabe Road	Prime Arterial	2,809	2,293	Vol. Not Listed	2,809	29,600	0.09	A
McCabe Road								
Brockman Rd to Forrester Rd	Mjr. Collector	1,292	1,558	Vol. Not Listed	1,558	27,400	0.06	A
Pulliam Road								
SR-98 to Anza Rd	Not Listed	757	182	Vol. Not Listed	757	7,100	0.11	A
SR-98								
Drew RD to Pulliam Rd	State Hwy	3,814	3,167	6,100	6,100	27,400	0.22	A
Pulliam Rd to Brockman Rd	State Hwy	4,120	3,167	6,100	6,100	27,400	0.22	A
Brockman Rd to Clark Rd	State Hwy	3,845	3,167	6,100	6,100	27,400	0.22	A

Notes: Classification based on Table 3 of Circulation and Scenic Highways Element. 4U = 4 lane undivided roadway. Daily volume is a 24-hour volume. LOS: Level of Service. V/C: Volume to Capacity ratio. Vol. = Volume.

Source: LOS Engineering, Inc., 2010.

5.2.1.4 Air Quality

A. Geographic Scope and Timeframe

The Salton Sea Air Basin (SSAB) is used as the geographic scope for the analysis of cumulative air quality impacts due to the existence of an Air Quality Management Plan (AQMP), State Implementation Plan (SIP), and requirements set forth by the Imperial County Air Pollution Control District (ICAPCD), which apply to all cumulative projects within the Salton Sea Air Basin.

Operation of the Proposed Action would not result in a significant long-term air quality impact because of the limited number of staff required during operation and the minimal maintenance work required for the solar energy center. However, potential short-term impacts of the Proposed Action would result due to vehicle and dust emissions associated with construction activities.

B. Existing Conditions

Currently, the SSAB is either in attainment or unclassified for all federal and state air pollution standards with the exception of O_3 (8-hour) and PM_{10}. Imperial County is classified as a non-attainment area for PM_{10} and

8-hour O_3 for the National Ambient Air Quality Standards (NAAQS). It should be noted that the U.S. EPA issued a final ruling determining that Imperial County attained the 1997 8-hour NAAQS for ozone. However, the determination did not constitute a re-designation to an "attainment" status under the Clean Air Act. Therefore, the designation status for Imperial County remains as a "moderate" non-attainment area of the 1997 8-hour ozone NAAQS. Imperial County is required to submit the 2009 8-hour Ozone "Modified" Air Quality Management Plan to the U.S. EPA for approval.

C. Effects of the Proposed Action

As discussed in EIR/EA Section 4.4, a significant air quality impact under CEQA would result if the Grading Emissions phase were to remain unmitigated at the Tier 0 (Baseline). During the Grading Emissions phase, NOx emissions would exceed ICAPCD's threshold. No significant air quality impact under CEQA would occur from the operations phase of the Proposed Action due to the limited number of staff required (a total of four full-time employees) to travel on and offsite. The Proposed Action will require some maintenance work associated with solar panel washing and equipment repair or replacement. Solar panel washing is estimated to occur about twice per year. No heavy equipment will be used during normal project operation. Operation and maintenance vehicles will include utility vehicles, trucks, forklifts, and loaders for route maintenance. Air quality impacts as a result of construction emissions would be short-term caused by air emissions generated during construction activities (i.e., grading, clearing, hauling) and emissions generated in the form of dust associated with soil disturbance (i.e., unpaved road travel). However, implementation of Mitigation Measures AQ1 and AQ2, as identified in Section 4.4 of this EIR/EA, would reduce this impact to a level less than significant under CEQA.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

The following indicators were used to analyze cumulative air quality impact, which are the same indicators used in EIR/EA Section 4.4 for the effects of the Proposed Action:

Indicator 1: *Violate any air quality standard or contribute substantially to an existing or projected air quality violation;*

Indicator 2: *Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);*

Indicator 3: *Expose sensitive receptors to substantial pollutant concentrations;*

Indicator 4: *Create objectionable odors affecting a substantial number of people; and,*

Indicator 5: *Conflict with or obstruct implementation of the applicable air quality plan.*

Impact Analysis

This analysis is concerned with criteria air pollutants. Such pollutants have impacts that are usually (though not always) cumulative by nature. Although possible, rarely would an individual project alone result in a

violation of federal or state air quality standards. However, a new source of pollution may contribute to violations of air quality standards due to existing background sources or foreseeable future projects. Air districts attain the criteria pollutant standards by adopting attainment plans. Depending on the air district, these plans typically include requirements for air offsets and the use of Best Available Control Technology (BACT) for new sources of emissions, and restrictions of emissions from existing sources of air pollution. ICAPCD currently has two attainment plans: 1) Ozone Air Quality Management Plan and 2) State Implementation Plan for PM_{10}.

Like the Proposed Action, cumulative projects are anticipated to emit air pollutants generated during construction activities associated with engine combustion gases and dust generation associated with vehicle travel on unpaved roads. Although air quality impacts associated with construction emissions would be short-term, additional emissions of criteria pollutants generated from the Proposed Action along with cumulative projects would significantly impact the air quality in the SSAB. However, the Proposed Action would implement Mitigation Measures AQ1 and AQ2, as identified in Section 4.4 of this EIR/EA, to reduce the level of impact to below a level of significance under CEQA. Cumulative projects are required to comply with ICAPCD's Rules and Regulations to mitigate air quality impacts associated with construction emissions to below a level of significance under CEQA.

The operational phase of the Proposed Action would not result in a considerable increase of criteria pollutants because operational vehicle trips are small and would generate criteria pollutants below 2.0 pounds per day, which is below the level of significance under CEQA. In addition, the criteria pollutants generated by the project's electricity demand are less than significant even when combined with vehicle trip-related criteria pollutant emissions. Therefore, the Proposed Action would not result in cumulative air quality impacts under CEQA associated with operational emissions.

5.2.1.5 Greenhouse Gas Emissions

A. Geographic Scope and Timeframe

The EPA and CARB regulate the GHG emission levels within the United States and more locally within the State of California. As such, GHG emission impacts are considered a global effects and the Earth's atmosphere is used as the geographic scope for analysis of greenhouse gas emissions impacts.

The cumulative impacts study area and cumulative projects considered in the cumulative impacts analysis for climate change are discussed in above. Net greenhouse gas emission impacts would result in the short-term emissions during construction activities and not during the long-term operational phase of the Proposed Action.

B. Existing Conditions

The solar energy facility site is currently utilized for agricultural production, specifically alfalfa crops. The current activities of the site emit a small amount of GHG emissions, associated with the operation of mechanical farm equipment and vehicles.

The transmission line corridor site is currently desert land under the jurisdiction of the BLM. There are currently no man-made sources of GHGs on the transmission line corridor site. As such, there are no existing "point source" GHG emissions at the site.

C. Effects of the Proposed Action

Short-term Construction Related GHG Impacts

The Proposed Action would contribute a total of 2,281 metric tons of CO_{2e} due to construction activities. This is below both the NEPA and CEQA thresholds of significance. However, the project would still be required to be consistent with the intent of AB 32; therefore, with the implementation of Mitigation Measures GHG1 and GHG2 as identified in Section 4.5 Greenhouse Gas Emissions of this EIR/EA a less than significant greenhouse gas emissions impact under CEQA is identified with the implementation of the Proposed Action.

Long-term Operational based GHG Impacts

During the operational phase of the Proposed Action, CO_2 produced by non-generation consumption would be 5.82 MW-h x 0.301 MT/MW-h = 1.75 metric tons per day. Annually the Proposed Action would produce 688.75 metric tons per year of CO_2, which is below the NEPA threshold of 25,000 metric tons or the CEQA threshold of 10,000 metric tons of CO_{2e} per year. Therefore, the Proposed Action would not result in a long-term greenhouse gas emission impact under CEQA.

Indirect Impacts

The Proposed Action would assist in alleviating dependence on fossil fuels and would provide an overall benefit to air quality by providing a clean, renewable energy source. Table 4.5-6 provides the estimated criteria pollutant emission rates from fossil-based power generation in the California grid mix and the amount of emissions displaced by the project annually.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

The following indicators were used to analyze cumulative greenhouses gas emissions impact, which are the same indicators used in EIR/EA Section 4.5 for the effects of the Proposed Action:

Indicator 1: *Generate greenhouse gas emissions of 25,000 metric tons or more of CO_2-equivalent GHG emissions on an annual basis.*

Indicator 2: *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment* (Generate GHG emissions of *10,000 metric tons of CO2-equivalent GHG emissions on an annual basis).*

Indicator 3: *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.*

Impact Analysis

No single project emit's enough GHG into the atmosphere to create a direct environmental impact from global warming. By its nature, GHG impact analysis is a cumulative impact analysis. As discussed in EIR/EA Section 4.5, the Proposed Action will implement Mitigation Measure AQ1 (as identified in EIR/EA Section 4.4 Air Quality) to ensure that the Proposed Action GHG impacts are less than significant under CEQA. In addition, Mitigation Measures GHG1 and GHG2 (as identified in EIR/EA Section 4.5 Greenhouse Gas Emissions) will be implemented with the Proposed Action various mitigation measures, even though they are not required to mitigate an impact but rather required to ensure the project is consistent with the intent of AB 32 and that would help to off-set the potential Greenhouse Gas Emissions associated with the Proposed Action. These measures are identified in EIR/EA Section 4.5 Greenhouse Gas Emissions. The Greenhouse Gas/Global Warming Risk Assessment (see EIR/EA Appendix C2 and EIR/EA Section 4.5) also provides a quantification of the greenhouse gas emissions associated with the project. The analysis identifies a less than significant impact to GHG emissions and global warming. Furthermore, the Proposed Action would assist in alleviating dependence on fossil fuels and would provide an overall benefit to air quality by providing a clean, renewable energy source. Furthermore, the Proposed Action is estimated to off-set approximately 183,600 tons of CO_2 equivalents annually from the atmosphere. Therefore, the Proposed Action would not contribute to a cumulatively significant greenhouse gas emissions impact under CEQA.

5.2.1.6 Geology/Soils and Mineral Resources

A. Geographic Scope and Timeframe

The Imperial Valley portion of the Salton Trough physiographic province of Southern California is used as the geographic scope for the analysis of cumulative impacts on geology/soils and mineral resources.

B. Existing Conditions

Imperial County is located in the Imperial Valley portion of the Salton Trough physiographic province of Southern California. This area is a seismically active region and may be subject potential hazards that occur from seismic activities such as ground shaking, surface rupture, liquefaction, and landslides.

C. Effects of the Proposed Action

As is common in most of Southern California, the Proposed Action site is located within a seismically active region. Although there are a number of faults in Imperial County, no known active faults or potentially active faults are known to exist on, or in the immediate vicinity of the site. The Proposed Action site is likely to be subject to at least one moderate to major earthquake during the design of the structures. However, the Proposed Action must comply with the most recent California Building Code (CBC) requirements.

The site-specific geology impacts that have the potential to occur on the Proposed Action site include liquefaction, differential settlement, and the presence of expansive and corrosive soils. These geology impacts are considered significant under CEQA. However, with the implementation of Mitigation Measure GS1, as identified in Section 4.6 of this EIR/EA, these impacts would be reduced to a level less than significant under CEQA. Mitigation Measure GS1 requires that all future grading and construction of the

project site comply with the geotechnical recommendations contained in the *Geotechnical Investigation Report, Imperial Solar Energy Center South,* prepared by Landmark Consultants, Inc. (May 2010). All development on the project site shall be in accordance with Title 24, California Code of Regulations. The geotechnical report is provided on the attached CD of Technical Appendices as Appendix D of this EIR/EA.

The Proposed Action site is currently under agricultural production and is not utilized for mineral resource production. No known mineral resources occur within the project site and the project site does not contain mapped mineral resources (USGS, 1983). As such, the Proposed Action would not adversely affect the availability of any known mineral resources within the project site. Thus, no significant impact under CEQA has been identified for this issue area.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

The following indicators were used to analyze cumulative geology/soils and mineral resources impact, which are the same indicators used in EIR/EA Section 4.6 for the effects of the Proposed Action:

Indicator 1: Be located on expansive soil, as defined in the latest California Building Code, creating substantial risk to life or property;

Indicator 2: *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

- *i. Rupture of a known earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Map;*
- *ii. Strong seismic ground shaking;*
- *iii. Seismic-related ground failure, including liquefaction; or,*
- *iv. Landslides.*

Indicator 3: *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslides, lateral spreading, subsidence, liquefaction or collapse;*

Indicator 4: *Result in substantial soil erosion or loss of topsoil;*

Indicator 5: *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state;*

Indicator 6: *Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan; or,*

Indicator 7: *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.*

Impact Analysis

Cumulative development would result in an increase in population and development that could be exposed to hazardous geological conditions, depending on the location of proposed developments. Geologic and soil conditions are typically site specific and can be addressed through appropriate engineering practices. Cumulative impacts to geologic resources would be considered significant under CEQA if the Proposed Action would be impacted by geologic hazard(s) and if the impact could combine with offsite geologic hazards to be cumulatively considerable. Implementation of the Proposed Action will result in site-specific geology and soils impacts under CEQA. However, with the implementation of Mitigation Measure GS1, as identified in Section 4.6 of this EIR/EA, these impacts will be reduced to a level less than significant under CEQA. Geologic conditions in the Southern California region will essentially be the same regardless of the amount of development. Therefore, the cumulative geologic impact is considered less than significant under CEQA.

With regards to Mineral Resources, no mineral resources are located on the project site. Therefore, in conjunction with other cumulative projects, the Proposed Action would not result in a cumulatively significant impact under CEQA to mineral resources.

5.2.1.7 Cultural Resources

A. Geographic Scope and Timeframe

The geographic scope for the analysis of cumulative impacts related to cultural resources is the Mt. Signal Area.

B. Existing Conditions

As discussed in EIR/EA Section 3.7, 19 sites are located within the Proposed Action APE.

C. Effects of the Proposed Action

As discussed in EIR/EA Section 4.7, 19 sites are located within the Proposed Action APE. The Proposed Action would result in significant impacts to two previously recorded sites located within the APE during construction of the project. However, Mitigation Measure CR1 will ensure that project impacts do not rise to the level of significance pursuant to CEQA.

There is a potential for indirect effects to sites adjacent to the Proposed Action APE due to increased traffic during construction. It is also possible that grading within the construction area could increase the amount of runoff during heavy rainfall events. There are seven sites that are adjacent to the direct impacts that may be indirectly impacted by the Proposed Action. However, Mitigation Measure CR2 will ensure that project impacts do not rise to the level of significance pursuant to CEQA.

During construction and operational repair periods of the Proposed Action, grading, excavation, and trenching will be required to repair buried utilities or other buried infrastructure. Subsurface excavation activities always have some potential to impact previously unknown archaeological subsurface resources. However, Mitigation Measure CR3 will ensure that project impacts do not rise to the level of significance

pursuant to CEQA. Furthermore, Mitigation Measure CR4 will ensure that potential project impacts to previously unknown human remains do not rise to the level of significance pursuant to CEQA.

With the implementation of Mitigation Measures CR1 through CR4, as identified in Section 4.7 of this EIR/EA, cultural resource impacts would be reduced to a level less than significant under CEQA.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

The following indicators were used to analyze cumulative cultural resources impact, which are the same indicators used in EIR/EA Section 4.7 for the effects of the Proposed Action:

Indicator 1: *An adverse effect is found when an undertaking may alter, directly or indirectly, and of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be further removed in distance or be cumulative. Adverse effects on historic properties include, but are not limited to:*

- *i. Physical destruction of or damage to all or part of the property;*
- *ii. Isolation of the property from or alteration of the character of the property's setting when that character contributes to the property's qualification for the National Register;*
- *iii. Removal of the property from its historic location;*
- *iv. Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;*
- *v. Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;*
- *vi. Neglect of the property, resulting in its deterioration or destruction; or*
- *vii. Transfer, lease, or sale of the property.*

Indicator 2: *The project causes a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the State CEQA Guidelines. This shall include the destruction, disturbance, or any alteration of characteristics or elements of a resource that cause it to be significant in a manner not consistent with the Secretary of the Interior Standards.*

Indicator 3: *The project causes a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the State CEQA Guidelines. This shall include the destruction or disturbance of an important archaeological site or any portion of an*

important archaeological site that contains or has the potential to contain information important to history or prehistory.

Indicator 4: *The project disturbs any human remains, including those interred outside of formal cemeteries.*

Impact Analysis

As discussed in EIR/EA Section 4.7, 19 sites are located within the Proposed Action APE. Of the 19 sites within the Proposed Action APE, two sites would be directly impacted and seven sites would be indirectly impacted with implementation of the Proposed Action. In addition, there is a potential for unknown archaeological subsurface resources and previously unknown human remains to be impacted during subsurface excavation. However, with the implementation of Mitigation Measures CR1 through CR4, as identified in Section 4.7 of this EIR/EA, cultural resource impacts would be reduced to a level less than significant under CEQA.

As with the Proposed Action, cumulative projects would be required to provide similar mitigation for any impacts to cultural resources to reduce the impacts to a level less than significant under CEQA. Therefore, the Proposed Action would not contribute to a significant cumulative cultural resources impact under CEQA.

5.2.1.8 Noise

A. Geographic Scope and Timeframe

The geographic scope for considering cumulative noise impacts on sensitive receptors is the area immediately surrounding the potentially sensitive receptors in the vicinity of the Proposed Action site.

B. Existing Conditions

As discussed in Section 3.8, ambient noise levels were measured at two noise monitoring locations. The measurements collected reflect ambient sound levels representative of the extremely rural agricultural setting of the Proposed Action. The major source of existing noise at the first noise monitoring location was from the infrequent movement of U.S. Border Patrol units. The major source of existing noise at the second noise monitoring location was entirely from background community and far-field noise.

C. Effects of the Proposed Action

During the construction phases of the Proposed Action, short-term noise will be generated associated with the operation of various construction equipment. However, construction activities must adhere to the construction time periods of 7 a.m. to 7 p.m., Monday through Friday, and 9 a.m. to 5 p.m. Saturday. No commercial construction operations are permitted on Sunday or holidays. Furthermore, construction equipment noise exceedances above the 75 dBA Leq noise threshold would not be significant as there are no sensitive receptors within or immediately adjacent to the project site. Therefore, short-term noise generated during construction activities is not considered a significant impact under CEQA.

Project-related traffic noise would exceed above the 3.0 dBA CEQA screening threshold on Pulliam Road between State Route 98 and Anza Road. However, no sensitive receptors are located along this roadway segment that would be adversely impacted by construction traffic due to the Proposed Action. Therefore, the Proposed Action's contribution to off-site roadway noise levels is not considered a significant impact under CEQA.

No operational noise impact would occur with implementation of the Proposed Action. All onsite fixed uses within the Proposed Action would be required to meet the operational noise standards of the County of Imperial Codified Ordinances Division 7 Noise Abatement and Control. The Proposed Action would comply with this ordinance. Therefore, onsite operational noise is not considered a significant impact under CEQA.

The Proposed Action is expected to generate a total of 15 vehicle trips per day during the operational phase. The vehicle trips per day would be minimal due to the minimal amount of workers required for the Proposed Action (four full-time employees) during operations. As such, the Proposed Action is not expected to result in a significant off-site traffic generated noise impact under CEQA.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

The following indicators were used to analyze cumulative noise impact, which are the same indicators used in EIR/EA Section 4.8 for the effects of the Proposed Action:

Indicator 1: *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (i.e., above 75 dB Leq measured at nearest sensitive receptor);*

Indicator 2: *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;*

Indicator 3: *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. This impact will occur if: (1) the future noise level after the project is completed will be within the "normally acceptable" noise levels shown in Table 3.8-3 for Industrial, Manufacturing, Utilities and Agriculture uses (70 dB) and will result in an increase of 5 dB CNEL or greater; (2) the future noise level after the project is completed will be greater than the "normally acceptable" noise levels shown in Table 3.8-3 for Industrial, Manufacturing, Utilities and Agriculture uses (70 dB) and will result in a noise increase of 3 dB CNEL or greater; (3) community noise exposure will be greater than the "normally acceptable" 70 dB for "Industrial, Manufacturing, Utilities, and Agricultural" category of land use as shown in Table 3.8-3; (4) construction noise will be greater than 75 dB Leq over an eight hour period from the nearest sensitive receptor (see Indicator 1); (5) the project will generate traffic and increase noise levels on off-site roadways above 3.0 dBA measured from the nearest sensitive receptor;*

Indicator 4: *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;*

Indicator 5: *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels; or,*

Indicator 6: *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.*

Impact Analysis

There are no cumulative projects located near enough to the Proposed Action site to contribute to cumulative adverse noise impacts. Cumulative projects that are not located within the immediate vicinity of the Proposed Action site would be outside of the geographic scope of the consideration of noise impact. Therefore, construction (short-term) and operational (long-term) noise generated by the Proposed Action would not contribute to cumulative noise impacts under CEQA. Furthermore, with the implementation of Mitigation Measures B2 and B5 though B6, as identified in Section 4.12 of this EIR/EA, for burrowing owls and sensitive bird species, there would be no cumulative noise impact under CEQA to these sensitive biological resources.

5.2.1.9 Agricultural Resources

A. Geographic Scope and Timeframe

The geographic scope of cumulative impacts related to agricultural resources is Imperial County.

B. Existing Conditions

The 946.6 gross acre (838 net buildable acres) solar energy facility portion of the project site is located on privately-owned, undeveloped and agricultural lands. A majority of this portion of the project site is currently used for agricultural purposes (alfalfa production). According to the 2004 FMMP, the site contains approximately 820.7 acres of land designated as Prime Farmland and Farmland of Statewide Importance.

C. Effects of the Proposed Action

The Proposed Action will result in the permanent loss of 820.7 acres of agricultural lands designated as Prime Farmland and Farmland of Statewide Importance. In addition, the Proposed Action is not consistent with certain Agricultural Element Goals and Objectives of the County of Imperial General Plan and mitigation is required for the project. A Land Evaluation Site Assessment analysis has been prepared in accordance with the methodology recommended by the California Department of Conservation and the conversion of existing land on the project site to other uses has been determined to be significant under CEQA. Mitigation Measure AR1, as identified in Section 4.9 of this EIR/EA, would be required to either procure Agricultural Conservation Easements on a 1 to 1 basis for all 820.7 acres, of similar quality farmland, outside of the path of development or pay an in-lieu mitigation fee. Implementation of Mitigation Measure AR1 would reduce this impact to a level less than significant under CEQA.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

The following indicators were used to analyze cumulative agricultural resources impact, which are the same indicators used in EIR/EA Section 4.9 for the effects of the Proposed Action:

Indicator 1: *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use;*

Indicator 2: *Conflict with existing zoning for agricultural use, or a Williamson Act contract; or,*

Indicator 3: *Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.*

Impact Analysis

Continuing development within the County of Imperial will result in the conversion of land currently utilized for agricultural production to urban use. This agricultural conversion has been a continuing trend in the County. As discussed above, the Proposed Action will result in the permanent loss of 820.7 acres of Prime Farmland and Farmland of Statewide Importance. However, with the implementation of Mitigation Measure AR1, as identified in Section 4.9 of this EIR/EA, this impact would be reduced to a level less than significant under CEQA. As with the Proposed Action, cumulative projects would be required to provide mitigation for any impacts to agricultural resources; therefore, the Proposed Action would not contribute to a significant cumulative agricultural resources impact under CEQA. The cumulative loss of agricultural resources in the County is considered significant, and mitigation would be required pursuant to County policy for any project that proposes the conversion of agricultural land.

5.2.1.10 Health, Safety and Hazardous Materials/Fire and Fuels Management

A. Geographic Scope and Timeframe

The geographic scope considered for cumulative impacts from health, safety and hazardous materials/fire and fuels management is the area within 1 mile of the boundary of the Proposed Action site.

B. Existing Conditions

According to the Phase I ESA, the Proposed Action site contains some areas where hazardous materials may be present. These include the potential presence of pesticides/herbicide residue and scattered trash and debris. Miscellaneous trash and debris was observed throughout the entire solar facility site. The Proposed Action site is currently and was recently used for agricultural purposes, and as such contamination from pesticides and herbicides is a potential hazard.

C. Effects of the Proposed Action

Potential hazardous materials currently on or near the solar energy facility portion of the project site include pesticides and herbicides, and scattered trash and debris. There is a potential for residual low-level concentrations of pesticides and herbicides to be present in soil and/or groundwater. However, the Federal Insecticide, Fungicide, and Rodenticide Act authorizes the legitimate application of herbicides

and pesticides used in accordance with manufacturer prescribed and labeled instructions. Therefore, the potential presence of low concentrations of agricultural chemicals on the solar energy facility site is considered less than significant under CEQA.

As described above, the Proposed Action site contains scattered trash and debris. In addition, during project construction and operation of the solar facility, herbicides will be used for weed management. These are considered significant impacts under CEQA. However, with implementation of Mitigation Measures HM1 and HM2, as identified in Section 4.10 of this EIR/EA, these impacts would be reduced to below a level of significance under CEQA. Mitigation HM1 would require all trash and debris within the project site to be disposed of off-site, in accordance with current, local, and federal disposal regulations. Mitigation Measure HM2 would require the approval of a weed control plan by the County of Imperial Agricultural Commissioner prior to application of herbicides on the solar facility.

Prior to construction, a Hazardous Material Management Program (HMMP) will be developed and implemented. The HMMP will be in accordance with federal and state requirements. Due to these provisions, a less than significant impact under CEQA is identified related to the transport and use of hazardous materials during construction and operation of the Proposed Action. No significant fire hazard impact under CEQA would occur with implementation of the Proposed Action because a Fire Protection Prevention Plan will be implemented.

The potential impact of the proposed transmission line on human health is considered less than significant under CEQA due to its proposed location within a designated utility corridor and the extremely rural agricultural setting of the surrounding area.

Lastly, the proposed facility presents an unlikely target for an intentionally destructive act and has an extremely low probability of attack. Preventative measures (fences, gates, lighting) and safeguards (cameras and gatehouse) for the facility would restrict vehicle access and deter intentionally destructive acts. As such, no significant environmental impacts under CEQA would be expected from physical damage to the Proposed Action or from loss of power delivery.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

The following indicators were used to analyze cumulative health, safety and hazardous materials/fire and fuels management impact, which are the same indicators used in EIR/EA Section 4.10 for the effects of the Proposed Action:

Indicator 1: *Be included on a list of hazardous materials sites;*

Indicator 2: *Release hazardous materials into the environment;*

Indicator 3: *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;*

Indicator 4: *Routinely transport, use or dispose of hazardous materials;*

Indicator 5: *Be located within a vicinity of a private airstrip that would result in a safety hazard for people residing or working in the project area;*

Indicator 6: *Be located within an airport land use plan or within two miles of a public airport or public use airport;*

Indicator 7: *Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan; and*

Indicator 8: *Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.*

Impact Analysis

There are no cumulative projects located in proximity to the Proposed Action site to contribute to cumulative adverse health, safety and hazardous materials/fire and fuels management impacts. Cumulative projects that are not located within 1 mile of the boundary of the Proposed Action site would be outside of the geographic scope of the consideration of an impact. Furthermore, the health, safety and hazardous materials/fire and fuels management conditions are limited to the Proposed Action site and would be mitigated with implementation of Mitigation Measures HM1 and HM2, as identified in Section 4.10 of this EIR/EA. Thus, development of the Proposed Action would not contribute to a significant, cumulative health, safety and hazardous materials/fire and fuels management impact under CEQA.

5.2.1.11 Hydrology and Water Quality

A. Geographic Scope and Timeframe

The geographic scope for considering cumulative hydrology and water quality impacts is the County of Imperial.

B. Existing Conditions

As discussed in Section 3.11, the existing drainage patterns at the solar energy facility site indicates that onsite storm runoff ponds in many locations. Agricultural fields on both the east and west sides of the Westside Main Canal generally drain to the northeast. Existing irrigation ditches and culverts around the perimeter of many of the fields also convey runoff. The fields are currently used for agriculture and the existing drainage facilities are operational.

The solar energy facility site is in area determined to be outside of the 0.2% annual chance floodplain.

The impaired waterbodies listed on the 303(d) list include the New River and Salton Sea.

C. Effects of the Proposed Action

The runoff on the solar energy facility site portion of the Proposed Action site would be intercepted and collected at various points. Drainage infrastructure would include detention basins, perimeter channels, and existing drains and culverts. According to hydrograph analyses, runoff peak flows and volumes generated by the site will be reduced in the proposed developed condition. This is a result of the change in land use from agriculture to a solar energy facility and the drainage infrastructure. Implementation of the Proposed Action would not contribute runoff water, which will exceed the capacity of existing or planned stormwater drainage systems. Therefore, no significant hydrology impact under CEQA has been identified.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, the project site is located in Zone X, which is an area determined to be outside of the 0.2% annual chance floodplain. As such, the potential flood hazard associated with a 100-year floodplain or failure of a dam is considered less than significant under CEQA.

Contamination associated with urban non-point source pollution (e.g., grease, oils, sediment, and heavy metals) could enter the on-site detention basins as a result of construction or post-construction related activities, resulting in potentially significant water quality impacts under CEQA. However, compliance with regulations concerning a National Discharge Pollution Discharge Elimination System (NPDES) general permit, as well as rules found in the Federal Clean Water Act, Section 402(p)(1) and 40 CFR 122.26, and implemented Order No. 90-42 of the California Regional Water Quality Control Board, would reduce water quality impacts below a level of significance under CEQA. This issue is considered less than significant. In addition, implementation of Mitigation Measure HWQ1, as identified in Section 4.11 of this EIR/EA, will reduce water quality impacts under CEQA to a level less than significant.

According to the biological technical report prepared by RECON Environmental Inc. (Appendix I-1), a significant impact to jurisdictional resources under CEQA is anticipated from widening of the access road and construction of the transmission line corridor. However, with the implementation of Mitigation Measure B7, as identified in Section 4.12 of this EIR/EA, this impact will be reduced to a level less than significant under CEQA.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

The following indicators were used to analyze cumulative hydrology and water quality impact, which are the same indicators used in EIR/EA Section 4.11 for the effects of the Proposed Action:

Indicator 1: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which will result in substantial erosion or siltation on- or off-site;

Indicator 2: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which will result in flooding on- or off-site;

Indicator 3: Create or contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;

Indicator 4: Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;

Indicator 5: Place within a 100-year flood hazard area structures that will impede or redirect flood flows;

Indicator 6: Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam;

Indicator 7: Inundate by seiche, tsunami, or mudflow;

Indicator 8: Violate any water quality standards or waste discharge requirements;

Indicator 9: Otherwise substantially degrade water quality; and/or,

Indicator 10: Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells will drop to a level which will not support existing land uses or planned uses for which permits have been granted).

The construction of the solar energy facility site portion of the Proposed Action is expected to result in short-term water quality impacts under CEQA. It is expected that some of the cumulative projects, which are not yet built, could be under construction at the same time as the Proposed Action. Therefore, substantial short-term cumulative water quality impacts under CEQA may occur during simultaneous construction of the Proposed Action and other cumulative projects. However, compliance with regulations concerning a National Discharge Pollution Discharge Elimination System (NPDES) general permit, as well as rules found in the Federal Clean Water Act, Section 402(p)(1) and 40 CFR 122.26, and implemented Order No. 90-42 of the California Regional Water Quality Control Board, would reduce water quality impacts below a level of significance under CEQA. As with the Proposed Action, each of the cumulative projects would be required to comply with the regulations listed above for water quality impacts identified for the specific cumulative project. Therefore, the Proposed Action would not result in cumulative water quality impacts under CEQA.

The Proposed Action is not expected to result in long-term impacts related to water quality. Although it is expected that some of the cumulative projects would be operational at the same time as the Proposed Action, the Proposed Action would mitigate water quality impacts by implementing site design, source control, and treatment control BMPs. Therefore, the Proposed Action would not result in cumulative water quality impacts under CEQA.

5.2.1.12 Biological Resources

A. Geographic Scope and Timeframe

The geographic scope for considering cumulative impacts on biological resources is the flat-tailed horned lizard (FTHL) habitat in California.

B. Existing Conditions

Eight vegetation communities were mapped within the survey area, including creosote bush-white burr sage scrub, desert saltbush scrub, desert wash (smoke tree woodland mix), cattail marsh, arrow weed thicket, mesquite thicket, tamarisk thicket, and active agricultural fields.

Priority plant species observed on-site include Wolf's cholla, Thurber's pilostyles, and Parish's desert thorn. Sensitive animal species observed throughout the site include the flat-tailed horned lizard, Colorado Desert fringe-toed lizard, Crissal thrasher, and Yellow warbler.

No ACOE wetland areas were identified within the ISEC-South survey area. Some man-made features (e.g., farm drains/ditches) that occur within the survey area are potentially exempt from ACOE jurisdiction. Jurisdictional non-wetland waters within the Imperial Solar Energy Center-South project survey area include one or more ephemeral drainages and a large expanse of the Pinto Wash alluvial fan that appears to occur within the active floodplain.

C. Effects of the Proposed Action

The Proposed Action has the potential to result in impacts to sensitive vegetation communities, flat-tailed horned lizards, burrowing owls, nesting raptors, migratory birds and other sensitive non-migratory bird species, and jurisdictional resources. However, with the implementation of Mitigation Measures B1 through B7, these impacts would be reduced to a level of less than significant under CEQA.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

The following indicators were used to analyze cumulative biological resources impact, which are the same indicators used in EIR/EA Section 4.12 for the effects of the Proposed Action:

Indicator 1: *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game and U.S. Fish and Wildlife Service;*

Indicator 2: *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;*

Indicator 3: *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filing, hydrological interruption, or other means;*

Indicator 4: *Interfere substantially with the movement of any native resident or migratory fish and wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;*

Indicator 5: *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and/or,*

Indicator 6: *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

Impact Analysis

As described above, the Proposed Action has the potential to result in biological resources impacts. However, with the implementation of Mitigation Measures B1 through B7, these impacts would be reduced to a level of less than significant under CEQA. As with the Proposed Action, each of the following cumulative projects would be required to provide mitigation for any impacts to biological resources; therefore, the Proposed Action would not contribute to a significant cumulative biological resources impact.

As shown in Table 5-12, existing and Proposed Actions are expected to impact a total of 301.9 acres of the 60,200-acre Yuha MA; approximately 0.5 percent of the 1% of take allowable within the Yuma MA. These impacts, still under the 1% threshold for impacts acreage, will be mitigated in accordance with the RMS, thereby reducing impacts to a level less than significant under CEQA.

5.2.1.13 Paleontological Resources

A. Geographic Scope and Timeframe

The geographic scope for the analysis of cumulative impacts related to paleontological resources is the Imperial Valley portion of the Salton Trough physiographic province of Southern California.

B. Existing Conditions

The site of the Proposed Action (which includes the solar energy facility and transmission corridor) is located in the Imperial Valley portion of the Salton Trough physiographic province of Southern California. The site and surrounding Imperial Valley is directly underlain by geologic units comprised of quaternary lake deposits of the ancient Lake Cahuilla.

Lakebed deposits of ancient Lake Cahuilla have yielded fossil remains from numerous localities in Imperial Valley. These include extensive freshwater shell beds, fish, seeds, pollen, diatoms, foraminifera, sponges, and wood. Lake Cahuilla deposits have also yielded vertebrate fossils, including teeth and bones of birds, horses, bighorn sheep, and reptiles. Therefore, the paleontological sensitivity of these lakebed deposits within the project site boundary is considered to be high.

TABLE 5-12
Approved or Proposed Actions in the Imperial Valley

Project Name (Project Proponent)	Impacts to Private Lands (acres)	Impacts to BLM Land (acres)	Impacts to Yuha FTHL MA (acres)
Existing disturbance (including Sunrise Powerlink)			180.1
"S" Line Upgrade 230-kV Transmission Line Project (Imperial Irrigation District)	106	2	2
Imperial Valley Solar (Stirling Energy Systems Two, LLC)	-	6,571	93
Proposed Action-ISEC Solar South (CSOLAR)	837.5	10.1	10.1
ISEC Solar West (CSOLAR)	1071.5	13.7	13.7
SDG&E Photovoltaic Solar Field	-	100	unknown
North Gila to Imperial Valley #2 (Southwest Transmission Partners)	-	450	3
Total	2,015.0	7,146.8	301.9

Source: Recon Environmental, Inc., 2010.

In addition, the BLM uses a Potential Fossil Yield Classification (PFYC) System that classifies the paleontological resource sensitivity for geologic units and assists in determining proper mitigation approaches for surface disturbing activities. The PFYC uses five classes, with Class 1 being Very Low Potential and Class 5 being Very High Potential. According to the BLM's PFYC System, the lakebed deposits of ancient Lake Cahuilla located within the project site is identified as Class 4b. Class 4b is defined by the BLM as an area underlain by geologic units with high potential to yield fossils but have lowered risks of human-caused adverse impacts and/or lowered risk of natural degradation due to alluvial material, or other conditions that may lessen or prevent potential impacts to the bedrock resulting from the activity. Management concern for paleontological resources in Class 4 is moderate to high, depending on the proposed action. For the Proposed Action, the management concern for paleontological resources is considered to be high.

C. Effects of the Proposed Action

Paleontological resources potentially located on the project site could be adversely affected during construction of the solar energy facility and transmission lines as a result of disturbance by grading or construction activities; unauthorized, unmonitored excavations; unauthorized collection of fossil materials; dislodging of fossils from their preserved environment; and/or, physical damage of fossil specimens. However, with the implementation of Mitigation Measures PR1 through PR5, as identified in Section 4.13 of this EIR/EA, paleontological resource impacts during construction would not be adverse under CEQA.

No significant impacts under CEQA to paleontological resources are anticipated during operation of the Proposed Action.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

The following indicators were used to analyze cumulative paleontological resources impact, which are the same indicators used in EIR/EA Section 4.13 for the effects of the Proposed Action:

Indicator 1: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Impact Analysis

Cumulative development in the Imperial Valley portion of the Salton Trough physiographic province of Southern California has the potential to directly or indirectly destroy paleontological resources. As discussed above, there is a potential for paleontological resources on the project site to be impacted during construction of the Proposed Action. However, with the implementation of Mitigation Measures PR1 through PR5, as identified in Section 4.13 of this EIR/EA, paleontological resource impacts would be reduced to a level less than significant under CEQA. As with the Proposed Action, cumulative projects would be required to provide mitigation for any impacts to paleontological resources; therefore, the Proposed Action would not contribute to a significant cumulative paleontological resources impact under CEQA.

5.2.1.14 Socioeconomics and Environmental Justice

A. Geographic Scope and Timeframe

The geographic scope of cumulative impacts related to socioeconomics and environmental justice is Imperial County. This is an appropriate area to consider because socioeconomic factors such as public services and benefits would be in Imperial County. The geographic scope for the labor force would be the Counties of Imperial, San Diego, Riverside, and San Bernardino.

B. Existing Conditions

According to the employment characteristics from the California Employment Development Department, in June 2010, Imperial County's civilian labor force was estimated to be 76,400 persons. Of this number, 55,300 were employed and 21,100 were unemployed. The unemployment rates (not seasonally adjusted) for Imperial County, the State of California, and the United States for June 2010 were 27.6 percent, 12.2 percent, and 9.6 percent, respectively. Imperial County's unemployment rate substantially exceeds that of the State of California and the United States.

The three largest sectors with the largest employment in Imperial County are agriculture, government, trade, transportation and utilities. Like many other sectors in Imperial County, these three sectors have experienced job loss due to the recent downturn in the economy.

The Proposed Action is located within census tract that has predominately Hispanic or Latino ethnic composition of the overall population. The median household income in this census tract is $32,273. As such, this census tract is considered a low-income and minority neighborhood.

C. Effects of the Proposed Action

As identified in Section 4.14 of this EIR/EA, the Proposed Action would not trigger any other development that would place socioeconomic/environmental justice burdens on the County of Imperial and nearby cities.

The Proposed Action is expected to consist of 250 workers during the temporary construction phase. During operations and maintenance of the proposed facilities, approximately four fulltime personnel would be required. Some of the workers would be recruited locally and available through the existing labor pool, and some would be specialized technical workers from outside of the local area. Most workers are expected to stay in local hotels or rental housing units. Based on the available regional housing stock, there are anticipated to be more than enough vacant homes to support any project-related immigration under the Proposed Action. Thus, the construction of the Proposed Action would place a negligible, temporary demand on housing, which is not considered a significant impact under CEQA.

Imperial County predominately consists of minority and low-income individuals. However, the Proposed Action is considered a public benefit and would not result in environmental effects to the minority population residing within and surrounding the Imperial County area. The Proposed Action would not displace any residents or traverse an established community because the project would be located on agricultural land and within a designated utility corridor.

The Proposed Action will provide beneficial effects on the surrounding area by providing social and environmental benefits, promoting stable electricity prices, reducing reliance on imported fuels, protecting public health, and benefits to communities with minority or low-income populations by creating local employment opportunities.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

The following indicators were used to analyze cumulative socioeconomic conditions and environmental justice impact, which are the same indicators used in EIR/EA Section 4.14 for the effects of the Proposed Action:

Indicator 1: *Induce substantial growth in an area, either directly or indirectly;*

Indicator 2: *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere;*

Indicator 3: *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere*;

Indicator 4: *Result in adverse effects or impacts that are appreciably more severe in magnitude or are predominately borne by any segment of the population, for example, household population with low income or a minority population in comparison with a population that is not low income or minority.*

Impact Analysis

Imperial County has been hard hit by the recent downturn in the economy. The Proposed Action, in conjunction with other cumulative projects would benefit Imperial County in the short-term by creating local construction work, and in the long-term with work associated with the operation of projects. Imperial County has an unemployment rate of 27.6 percent, which is currently higher than the unemployment rate of the State of California and United States. Like the Proposed Action, cumulative projects could have similar beneficial impacts because the construction and operation of the projects would provide local employment, which in turn could lower the unemployment rate in Imperial County. In addition, no substantial adverse socioeconomic impacts under CEQA on housing or the displacement of residents would occur with implementation of the Proposed Action due to the location of the project site on agricultural land and land designated for utility corridors. Therefore, the Proposed Action is anticipated to contribute to beneficial socioeconomic effects and would not contribute to any cumulative adverse socioeconomic and environmental justice impacts under CEQA in Imperial County.

5.2.1.15 Recreation

A. Geographic Scope and Timeframe

The geographic scope for the analysis of cumulative impacts related to recreation includes the local and regional recreation facilities in the County of Imperial.

B. Existing Conditions

As discussed in EIR/EA Section 3.15, the solar energy facility site is located on private land designated for agricultural use in the County of Imperial and is not designated or zoned for recreation use. The transmission line corridor would be located within an area currently designated by the BLM as Utility Corridor "N." The entire transmission line corridor is located within the Yuha Desert Recreation Lands. The CDCA Plan designates this area as Multiple-Use L (Limited Use), which is suitable for recreation "...which generally involves low to moderate use densities." The Limited Use designation also limits all motorized travel to designated routes. Based on the *Western Colorado Desert Routes of Travel Designations,* there are no open routes designated on the transmission line corridor site.

In addition, California State Parks administers several recreational areas located in the general vicinity of the overall project site.

C. Effects of the Proposed Action

The Limited Use designation of the transmission line corridor and portion of the access road within BLM lands are suitable for recreation, but limits all motorized travel to designated routes. Utility Corridor "N" is not designated for OHV recreation; however, the BLM lands located adjacent to the Utility Corridor "N" can be used for OHV recreation. Also, the existing dirt access road proposed to be utilized for access to the solar

facility site is designated as "open." With the installation of the transmission line corridor within the designated Utility Corridor "N" and access road, the Proposed Action would not preclude the surrounding BLM lands to be used for recreational uses, such as OHV recreation, and impacts to recreational uses would be minimized. In addition, the Proposed Action would not construct access routes within the BLM lands that could potentially be used as a corridor for OHV use. The Proposed Action involves widening an existing dirt road, which a portion of which traverses BLM lands for construction and operation access to the solar site. This road is designated as "open" and is therefore available for OHV use. The project would not preclude, or alter the continuation of this use. As such, the construction of the transmission line corridor and access road proposed under the Proposed Action would not result in a significant impact under CEQA associated with recreation.

The solar energy facility and the portion of the access road located within privately owned land of the Proposed Action does not involve the construction of recreation facilities. Furthermore, the Proposed Action is the construction and operation of a solar energy facility and would not contain a residential component. Therefore, no significant recreation impact under CEQA is identified with the construction of the solar energy facility site and portion of the access road improvements on private land in the County of Imperial.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

The following indicators were used to analyze cumulative recreation impact, which are the same indicators used in EIR/EA Section 4.15 for the effects of the Proposed Action:

Indicator 1: *Directly or indirectly disrupt recreation activities in established Federal, State, or local recreation areas and/or wilderness areas;*

Indicator 2: *Substantially reduce the scenic, biological, cultural, geologic, or other important factors that contribute to the value of Federal, State, local, or private recreational facilities or wilderness areas; and/or,*

Indicator 3: *Diminish the enjoyment of existing recreational opportunities.*

Indicator 4: *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; and/or,*

Indicator 5: *Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.*

Impact Analysis

As discussed in the Effects of the Proposed Action, the Proposed Action would not preclude the surrounding BLM lands to be used for recreational uses. These BLM lands would be able to continue recreational activities that are permitted within their specified use designations. Furthermore, the solar energy facility portion of the Proposed Action does not involve the construction of recreation facilities. The

Proposed Action would not contain a residential component that would increase the use of an existing neighborhood or regional park or other recreational facilities such that substantial physical deterioration would occur. Therefore, the Proposed Action would not result in a cumulative impact under CEQA to recreation.

5.2.1.16 Special Designations

A. Geographic Scope

The geographic scope for considering cumulative impacts on Special Designations areas is the Yuha Desert Area ACEC.

B. Existing Conditions

As discussed in EIR/EA Section 3.16, the Proposed Action does not have any special designations involving certain resources, including Wilderness Areas, donated lands, National Wild and Scenic Rivers, BLM designated range allotments or pasture for wildlife or livestock, and designated wilderness areas. However, the Proposed Action transmission line corridor site is located within the Yuha Desert Area of Critical Environmental Concern under BLM jurisdiction.

C. Effects of the Proposed Action

As discussed in EIR/EA Section 4.12 Biological Resources, the BLM manages all land uses within the ACEC in order to minimize impact to this sensitive area. The Proposed Action is an allowable use under the CDCA, as the proposed ROW for the transmission line corridor falls within the CDCA designated "Utility Corridor N." The portion of the access road that traverses BLM lands is an existing designated dirt access road and is not located within the CDCA. Proposed impacts to biological resources discussed in EIR/EA Section 4.12.2 are in conformance with the CDCA and maintains the integrity and intent of the Conservation Plan. Therefore, the Proposed Action would not conflict with the management goals of any special designation area.

D. Cumulative Impact Analysis

NEPA Indicators

The following indicators were used to analyze cumulative special designations impact, which are the same indicators used in EIR/EA Section 4.16 for the effects of the Proposed Action:

Indicator 1: Conflict with the management goals of any special designation area.

Impact Analysis

The Proposed Action is an allowable use under the CDCA. As discussed in EIR/EA Section 4.12.2, proposed impacts to biological resources are in conformance with the CDCA and maintains the integrity and intent of the Conservation Plan. Furthermore, the Proposed Action would not have impacts on Wilderness Areas, donated lands, National Wild and Scenic Rivers, BLM designated range allotments or pasture for wildlife or livestock, and designated wilderness areas. As such, the Proposed Action would not contribute to cumulative impacts on any resources within these special designations.

5.2.2 Alternative 1-Alternative Transmission Line Corridor

5.2.2.1 Visual Resources

A. Geographic Scope and Timeframe

The geographic scope for the analysis of cumulative impacts related to visual resources is within a distance of five or less miles of the Alternative 1-Alternative Transmission Line Corridor.

B. Existing Conditions

Imperial County contains a wealth of scenic visual resources, which include desert areas, sand hills, mountains, and the Salton Sea.

Existing views onto the project site are available from the surrounding areas, specifically from SR-98, Pulliam Road, Anza Road and Cook Road. Due to the flat topography of the site and the surrounding area, besides the existing transmission lines located within the BLM transmission corridor, the access road and solar energy facility site are not readily visible from many viewpoints, and there are no unique topographical features associated with the site. Based on the visibility analysis, the site is only visible from immediately adjacent roads. The only portion of the project that is visible from more distant surrounding roads are the transmission lines and towers that currently traverse BLM lands.

C. Effects of the Alternative 1-Alternative Transmission Line Corridor

The Alternative 1-Alternative Transmission Line Corridor is not located in a designated scenic vista, nor has the County of Imperial General Plan designated the project site as an important visual resource. None of the roadways abutting or surrounding the project site are designated or proposed scenic roadways. No historic structures or significant scenic resources exist on the Alternative 1-Alternative Transmission Line Corridor site. In addition, the Juan Bautista de Anza Matil Historic Trail is located approximately 5 miles west of the Alternative 1-Alternative Transmission Line Corridor site; this trail has a potential to be identified as a scenic resource; however, due to its distance from the project site and flat topography of the land within the project area, the project site is not readily visible from this trail. There is the potential that the transmission facilities could be visible along portions of the trail; however, the proposed transmission towers would be similar in use and scale as the existing towers and transmission facilities in the area. Therefore, development of the Alternative 1-Alternative Transmission Line Corridor would not have a substantial adverse effect under CEQA on a scenic vista or damage scenic resources. In addition, none of the KOPs described in Section 3.1 of this EIR/EA are identified as a scenic vista.

Construction of the Alternative 1-Alternative Transmission Line Corridor would alter the existing visual character of the area and its surroundings as a result of converting agricultural land to a solar energy facility. However, due to the flat topography of the site and surrounding area; location of the project site that is removed from most public views within an area surrounded by existing agriculture land; and, the installation of the perimeter fencing the equipment proposed to be installed on the project site would not be visible from any surrounding view point. In addition, the site would not be visible from any designated scenic resources or scenic highways. Furthermore, the Alternative 1-Alternative Transmission Line Corridor

would require approval of a CUP by the County of Imperial that would allow for the construction and operation of the proposed solar energy facility on a project site zoned for agriculture. As such, with approval of the CUP, the proposed solar energy facility would be consistent with the allowed uses on the agricultural land and would not conflict with the surrounding land uses. Therefore, this issue is considered less than significant under CEQA.

The proposed transmission line corridor will be located within a designated utility corridor and the transmission line will be similar to the existing transmission facilities located within this corridor, no impacts to visual resources within BLM lands would occur. Therefore, because the proposed transmission line corridor would be similar to the existing corridor and the project site is designated for such use, implementation of the Alternative 1-Alternative Transmission Line Corridor would not substantially degrade the existing visual character or quality of the site and its surroundings. Therefore, this issue is considered less than significant under CEQA.

Similar to the solar energy facility site, the access road is not visible from any KOPs or designated scenic highways or vistas. As such, the widening and use of this road would not result in a significant impact under CEQA to visual resources.

With regards to light and glare, as discussed in Section 4.1 of this EIR/EA, the Alternative 1-Alternative Transmission Line Corridor would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area and would not impact users of the area (e.g., campers, stargazers, and recreational users of the desert, etc.) Therefore, no significant impact under CEQA is identified for this issue area.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative visual resources impact, which are the same indicators used in EIR/EA Section 4.1 for the effects of the Alternative 1-Alternative Transmission Line Corridor:

Indicator 1: *Have a substantial adverse effect on a scenic vista;*

Indicator 2: *Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway;*

Indicator 3: *Substantially degrade the existing visual character or quality of the site and its surroundings; and/or,*

Indicator 4: *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.*

Impact Analysis

As discussed in EIR/EA Section 4.1, no visual resources impacts have been identified. Development of the Alternative 1-Alternative Transmission Line Corridor in conjunction with the cumulative projects will gradually change the visual character of this portion of the Imperial Valley. However, the projects are being designed in accordance with the County of Imperial's General Plan and Land Use Ordinance. The visual character will change from rural, agricultural vistas to one with urban characteristics; however, these changes are not characterized as degradation. Furthermore, the proposed use and widening of the existing access road that traverses both BLM and private lands is not visible from any designated scenic resources or KOPs and the Proposed Action would not substantially change the visual character of the access road. Therefore, the Alternative 1-Alternative Transmission Line Corridor would not result in cumulatively significant visual resource impact under CEQA.

5.2.2.2 Land Use

A. Geographic Scope and Timeframe

The geographic scope for the analysis of cumulative impacts related to land use is the County of Imperial.

B. Existing Conditions

The solar energy facility portion of the Alternative 1-Alternative Transmission Line Corridor is located on undeveloped and agricultural lands, in the unincorporated Mt. Signal area of the County of Imperial. The proposed transmission line corridor would be located within BLM lands. The proposed access road is located within BLM lands and private land. Land use plans and policies that are applicable to the project site include the County of Imperial General Plan, the County of Imperial Land Use Ordinance, Airport Land Use Compatibility Plan, Southern California Association of Government's Regional Comprehensive Plan and Regional Transportation Plan, Federal Aviation Regulations Part 77, Federal Land Management Act, 1976, California Desert Conservation Area Plan, Yuha Basin Area of Critical Environmental Concern (ACEC) Management Plan and Flat-tailed Horned Lizard Rangewide Management Strategy.

C. Effects of the Alternative 1-Alternative Transmission Line Corridor

Similar to the Proposed Action, the Alternative 1-Alternative Transmission Line Corridor would conflict with the County's Agricultural goals and objectives, and the implementation of Mitigation Measure AR1, as identified in Section 4.9 of this EIR/EA, is required pursuant to County policy in order to reduce the impact to a level less than significant. As part of the Alternative 1-Alternative Transmission Line Corridor, a CUP application has been filed, which would allow the uses of the Alternative 1-Alternative Transmission Line Corridor to occur within the A-2-R and A-3 zones. As such, the Alternative 1-Alternative Transmission Line Corridor is consistent with all other land use plans for the project area. The transmission towers are proposed to be located within Utility Corridor "N" and no plan amendment would be required. In addition, the proposed widening and use of the existing access road, would require a right of way permit from the BLM and secured easements from property owners; however, use of this road for construction and maintenance would not prohibit or diminish the existing vehicular use of the road by others. Therefore, no land use compatibility impact under CEQA has been identified.

Potential impacts to biological resources will occur with implementation of the Alternative 1-Alternative Transmission Line Corridor. However, Mitigation Measures B3, B4, and B9 (as identified in Section 4.12 of this EIR/EA) have been identified to address potential direct and indirect impacts under CEQA to biological resources located within the Yuha Basin Area of Critical Environmental Concern Management Plan.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative land use impact, which are the same indicators used in EIR/EA Section 4.2 for the effects of the Alternative 1-Alternative Transmission Line Corridor:

Indicator 1: *Physically divide an established community;*

Indicator 2: *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or Land Use Ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; and/or,*

Indicator 3: *Conflict with the any applicable habitat conservation plan or natural community conservation plan.*

Impact Analysis

As discussed in EIR/EA Section 4.2 of this EIR/EA, the Alternative 1-Alternative Transmission Line Corridor would conflict with the County's Agricultural goals and objectives and has the potential to impact biological resources within the Yuha Basin ACEC. However with implementation of Mitigation Measures AR1, B3, B4, and B9, as identified in Sections 4.9 and 4.12 of this EIR/EA, these impacts under CEQA would be reduced to a level less than significant. The Alternative 1-Alternative Transmission Line Corridor is consistent with all other land use plans for the project area. Therefore, no land use compatibility impact has been identified, and implementation of the Alternative 1-Alternative Transmission Line Corridor would not contribute to a significant cumulative land use compatibility impact in the County of Imperial. The Alternative 1-Alternative Transmission Line Corridor, in conjunction with other development in Imperial County, is not anticipated to result in a significant cumulative land use impact under CEQA.

5.2.2.3 Transportation/Circulation

A. Geographic Scope and Timeframe

The geographic scope of the cumulative analysis for transportation/circulation For Alternative 1-Alterantive Transmission Line Corridor is the same as the Proposed Action, discussed above. The geographic scope is based on the roadways in the vicinity of the project site that may be impacted by traffic generated by the Proposed Action and cumulative projects, which include Interstate 8 (I-8), Brockman Road, Drew Road, Forrester Road, McCabe Road, Pulliam Road, and State Route 98 (SR-98). Figure 3.3-1 depicts the existing roadways conditions of the roadways that were analyzed in the Traffic Impact Analysis (Appendix B of this EIR/EA).

The Traffic Impact Analysis identifies cumulative projects in the vicinity of the project site that would potentially add traffic to the study area roadways and contribute to a cumulative impact. These projects are expected to be developed by Year 2012. In addition, for the traffic generating cumulative projects, for the forecasted Horizon Year (2030) conditions, a growth factor of 7.37 percent was added, which applied to the sum of the other cumulative traffic volumes. The cumulative projects are listed above in Section 5.1. Similar to the Proposed Action, as discussed above, Alternative 1-Alternative Transmission Line Corridor would only result in short-term impacts related to construction activities. No long-term impacts related to the operations of the project are identified.

B. Existing Conditions

Similar to the Proposed Action, as discussed in Section 3.3 of this EIR/EA, the affected environment for transportation/circulation under Alternative 1-Alternative Transmission Line Corridor is based on the existing traffic conditions of the roadways within the vicinity of the project site. Based on analysis provided in the Traffic Impact Analysis (Appendix B of this EIR/EA) during the existing Year 2008 conditions all intersections operate at LOS C or better during both the weekday AM and PM peak hours; all roadway segments currently operate at LOS A; and, all freeway segments operate at LOS B or better. During the Year 2012 conditions, all intersections operate at LOS C or better during both the weekday AM and PM peak hours; all roadway segments operate at LOS B or better; and, all freeway segments operate at LOS B or better.

C. Effects of the Alternative 1-Alternative Transmission Line Corridor

Similar to the Proposed Action, as discussed in Section 4.3 of this EIR/EA, the Alternative1-Alternative Transmission Line Corridor is anticipated to start construction in September 2011 and be completed by January 2013. The construction phase of the project would generate approximately 680 ADT, whereas, the operations and maintenance of the project is estimated to generate 10 to 15 ADT. As such, the higher and more conservative construction trip generation, although short-term in nature, was used to determine potential project impacts. Therefore, construction related traffic was added to the Year 2012 conditions to analyze short-term construction related impacts. As discussed in Section 4.3 of this EIR/EA, with the addition of the construction traffic onto Year 2012 conditions, no direct impacts under CEQA to intersections or roadway segments were identified.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative traffic/circulation impact, which are the same indicators used in EIR/EA Section 4.3 for the effects of the Alternative 1-Alternative Transmission Line Corridor:

Indicator 1: *Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections);*

Indicator 2: *Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways;*

Indicator 3: *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);*

Indicator 4: *Result in inadequate emergency access;*

Indicator 5: *Result in inadequate parking capacity; or,*

Indicator 6: *Conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).*

Impact Analysis

Year 2012 plus Cumulative Conditions

Similar to the Proposed Action, as discussed above, under Year 2012 plus cumulative conditions, the study intersections and roadways were calculated to operate at LOS C or better, except for:

- Intersection of Forrester Road to I-8 EB Ramp (LOS F PM); and,
- Intersection of SR-98 at Clark Road (LOS F PM).

Year 2012 Plus Cumulative Plus Project Conditions

Similar to the Proposed Action, under Year 2012 plus cumulative plus Alternative 1-Alternative Transmission Line Corridor project conditions, the study area intersections and roadways were calculated to operate at LOS C or better, except for:

- Intersection of Forrester Road to I-8 EB Ramp (LOS F, PM); and,
- Intersection of SR-98 at Clark Road (LOS F, PM).

Similar to the Proposed Action, the addition of the Alternative 1-Alternative Transmission Line Corridor trips to the Year 2012 plus cumulative conditions would result in a cumulatively significant impact under CEQA to both of the intersections noted above. The cumulative impacts to these intersections are due to background traffic growth from surrounding new development. If a majority of the proposed new development does not materialize, then the cumulatively impacted intersections may continue to operate at acceptable levels of service and would not require mitigation. Therefore, it is recommended that a mitigation monitoring and reporting program be established to determine if the two aforementioned intersections would operate at unacceptable LOS starting in year 2012 and beyond annually until the project construction is completed. If unacceptable LOS is document in year 2012, then fair share or payment of applicable Transportation Impact fee is recommended as the mitigation measure. As such, with the implementation of Mitigation Measure CUM1, as described above under the Proposed Action, these impacts would be reduced to a level less than significant under CEQA.

Horizon Year (2030) Plus Project Conditions

Similar to the Proposed Action, the Horizon Year plus Alternative 1-Alternative Transmission Line Corridor project segment operations are provided in Table 5-11. Under Horizon Year 2030 plus Alternative 1-Alternative Transmission Line Corridor project conditions, the study area roadway segments were

calculated to operate at LOS C or better based on the study segments being built to Year 2030 roadway classifications. Therefore, no impact under CEQA is identified for this issue area.

In summary, implementation of the Alternative 1-Alternative Transmission Line Corridor would result in a significant, but mitigable cumulative transportation/circulation impact under CEQA.

5.2.2.4 Air Quality

A. Geographic Scope and Timeframe

Similar to the Proposed Action, the Salton Sea Air Basin (SSAB) is used as the geographic scope for the analysis of cumulative air quality impacts for the project under Alternative 1-Alternative Transmission Line Corridor.

B. Existing Conditions

Currently, the SSAB is either in attainment or unclassified for all federal and state air pollution standards with the exception of O_3 (8-hour) and PM_{10}. Imperial County is classified as a non-attainment area for PM_{10} and 8-hour O_3 for the National Ambient Air Quality Standards (NAAQS). It should be noted that the U.S. EPA issued a final ruling determining that Imperial County attained the 1997 8-hour NAAQS for ozone. However, the determination did not constitute a re-designation to an "attainment" status under the Clean Air Act. Therefore, the designation status for Imperial County remains as a "moderate" non-attainment area of the 1997 8-hour ozone NAAQS. Imperial County is required to submit the 2009 8-hour Ozone "Modified" Air Quality Management Plan to the U.S. EPA for approval.

C. Effects of the Alternative 1-Alternative Transmission Line Corridor

Similar to the Proposed Action, a significant air quality impact would result if the Grading Emissions phase were to remain unmitigated at the Tier 0 (Baseline). During the Grading Emissions phase, NOx emissions would exceed ICAPCD's threshold. No significant air quality impact would occur from the operations phase of the Alternative 1-Alternative Transmission Line Corridor due to the limited number of staff required (a total of four full-time employees) to travel on and offsite. Air quality impacts as a result of construction emissions would be short-term caused by air emissions generated during construction activities and emissions generated in the form of dust associated with soil disturbance (i.e., unpaved road travel). However, implementation of Mitigation Measures AQ1 and AQ2, as identified in Section 4.4 of this EIR/EA, would reduce this impact to a level less than significant under CEQA.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative air quality impact, which are the same indicators used in EIR/EA Section 4.4 for the effects of the Alternative 1-Alternative Transmission Line Corridor:

Indicator 1: Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

Indicator 2: *Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);*

Indicator 3: *Expose sensitive receptors to substantial pollutant concentrations;*

Indicator 4: *Create objectionable odors affecting a substantial number of people; and,*

Indicator 5: *Conflict with or obstruct implementation of the applicable air quality plan.*

Impact Analysis

Similar to the Alternative 1-Alternative Transmission Line Corridor, cumulative projects are anticipated to emit air pollutants generated during construction activities associated with engine combustion gases and dust generation associated with vehicle travel on unpaved roads. Although air quality impacts associated with construction emissions would be short-term, additional emissions of criteria pollutants generated from the project under Alternative 1-Alternative Transmission Line Corridor along with cumulative projects would significantly impact the air quality in the SSAB. However, the Alternative 1-Alternative Transmission Line Corridor would implement Mitigation Measures AQ1 and AQ2, as identified in Section 4.4 of this EIR/EA, to reduce the level of impact to below a level of significance under CEQA. Cumulative projects are required to comply with ICAPCD's Rules and Regulations to mitigate air quality impacts associated with construction emissions to below a level of significance under CEQA.

Similar to the Proposed Action, the operational phase of the Alternative 1-Alternative Transmission Line Corridor would not result in a considerable increase of criteria pollutants because operational vehicle trips are small and would generate criteria pollutants under 2.0 pounds per day, which is below the level of significance under CEQA. In addition, the criteria pollutants generated by the project's electricity demand are less than significant even when combined with vehicle trip-related criteria pollutant emissions. Therefore, the Alternative 1-Alternative Transmission Line Corridor would not result in cumulative air quality impacts under CEQA associated with operational emissions.

5.2.2.5 Greenhouse Gas Emissions

A. Geographic Scope and Timeframe

The EPA and CARB regulate the GHG emission levels within the United States and more locally within the State of California. As such, GHG emission impacts are considered a global effects and the Earth's atmosphere is used as the geographic scope for analysis of greenhouse gas emissions impacts.

The cumulative impacts study area and cumulative projects considered in the cumulative impacts analysis for climate change are discussed in above. Similar to the Proposed Action, net greenhouse gas emission impacts would result in the short-term emissions during construction activities and not during the long-term operational phase of the Alternative 1-Atlernative Transmission Lien Corridor.

B. Existing Conditions

The solar energy facility site is currently utilized for agricultural production, specifically alfalfa crops. The current activities of the site emit a small amount of GHG emissions, associated with the operation of mechanical farm equipment and vehicles.

The transmission line corridor site is currently desert land under the jurisdiction of the BLM. There are currently no man-made sources of GHGs on the transmission line corridor site. As such, there are no existing "point source" GHG emissions at the site.

C. Effects of the Proposed Action

Short-term Construction Related GHG Impacts

Similar to the Proposed Action, Alternative 1-Alternative Transmission Line Corridor would contribute a total of 2,281 metric tons of CO_{2e} due to construction activities. This is below both the NEPA and CEQA thresholds of significance. However, the project would still be required to be consistent with the intent of AB 32; therefore, with the implementation of Mitigation Measures GHG1 and GHG2, as identified in Section 4.5 Greenhouse Gas Emissions of this EIR/EA, a less than significant greenhouse gas emissions impact under CEQA is identified with the implementation of the Alternative 1-Alternative Transmission Line Corridor.

Long-term Operational based GHG Impacts

Similar to the Proposed Action, during the operational phase of the Alternative 1-Alternative Transmission Line Corridor, CO_2 produced by non-generation consumption would be 5.82 MW-h x 0.301 MT/MW-h = 1.75 metric tons per day. Annually the Alternative 1-Alternative Transmission Line Corridor would produce 688.75 metric tons per year of CO_2, which is below the NEPA threshold of 25,000 metric tons or the CEQA threshold of 10,000 metric tons of CO_{2e} per year. Therefore, the Alternative 1-Alternative Transmission Line Corridor would not result in a long-term greenhouse gas emission impact under CEQA.

Indirect Impacts

Similar to the Proposed Action, the Alternative 1-Alternative Transmission Line Corridor would assist in alleviating dependence on fossil fuels and would provide an overall benefit to air quality by providing a clean, renewable energy source. Table 4.5-6 provides the estimated criteria pollutant emission rates from fossil-based power generation in the California grid mix and the amount of emissions displaced by the project annually.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

The following indicators were used to analyze cumulative greenhouses gas emissions impact, which are the same indicators used in EIR/EA Section 4.5 for the effects of the Proposed Action:

Indicator 1: *Generate greenhouse gas emissions of 25,000 metric tons or more of CO_2-equivalent GHG emissions on an annual basis.*

Indicator 2: *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment* (Generate GHG emissions of *10,000 metric tons of CO2-equivalent GHG emissions on an annual basis).*

Indicator 3: *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.*

Impact Analysis

No single project emit's enough GHG into the atmosphere to create a direct environmental impact from global warming. By its nature, GHG impact analysis is a cumulative impact analysis. As discussed in EIR/EA Section 4.5, similar to the Proposed Action, the Alternative 1-Alternative Transmission Line Corridor will implement Mitigation Measure AQ1 (as identified in EIR/EA Section 4.4 Air Quality) to ensure that the Alternative 1-Alternative Transmission Line Corridor GHG impacts are less than significant under CEQA. In addition, Mitigation Measures GHG1 and GHG2 (as identified in EIR/EA Section 4.5 Greenhouse Gas Emissions) will be implemented with the Alternative 1-Alternative Transmission Line Corridor various mitigation measures, even though they are not required to mitigate an impact but rather required to ensure the project is consistent with the intent of AB 32 and that would help to off-set the potential Greenhouse Gas Emissions associated with the Alternative 1-Alternative Transmission Line Corridor. These measures are identified in EIR/EA Section 4.5 Greenhouse Gas Emissions. The Greenhouse Gas/Global Warming Risk Assessment (see EIR/EA Appendix C2 and EIR/EA Section 4.5) also provides a quantification of the greenhouse gas emissions associated with the project. The analysis identifies a less than significant impact to GHG emissions and global warming. Furthermore, the Alternative 1-Alternative Transmission Line Corridor would assist in alleviating dependence on fossil fuels and would provide an overall benefit to air quality by providing a clean, renewable energy source. Furthermore, the Alternative 1-Alternative Transmission Line Corridor is estimated to off-set approximately 183,600 tons of CO_2 equivalents annually from the atmosphere. Therefore, the Alternative 1-Alternative Transmission Line Corridor would not contribute to a cumulatively significant greenhouse gas emissions impact under CEQA.

5.2.2.6 Geology/Soils and Mineral Resources

A. Geographic Scope and Timeframe

Similar to the Proposed Action, the Imperial Valley portion of the Salton Trough physiographic province of Southern California is used as the geographic scope for the analysis of cumulative impacts on geology/soils and mineral resources for the Alternative 1-Alternative Transmission Line Corridor.

B. Existing Conditions

Imperial County is located in the Imperial Valley portion of the Salton Trough physiographic province of Southern California. This area is a seismically active region and may be subject potential hazards that occur from seismic activities such as ground shaking, surface rupture, liquefaction, and landslides.

C. Effects of the Alternative 1-Alternative Transmission Line Corridor

As is common in most of Southern California, the Alternative 1-Alternative Transmission Line Corridor site is located within a seismically active region. Alternative 1-Alternative Transmission Line Corridor site is likely to

be subject to at least one moderate to major earthquake during the design of the structures. However, similar to the Proposed Action, the project under Alternative 1-Alternative Transmission Line Corridor must comply with the most recent California Building Code (CBC) requirements.

Similar to the Proposed Action, the site-specific geology impacts that have the potential to occur on the Alternative 1-Alternative Transmission Line Corridor site include liquefaction, differential settlement, and the presence of expansive and corrosive soils. These geology impacts are considered significant under CEQA. However, with the implementation of Mitigation Measure GS1, as identified in Section 4.6 of this EIR/EA, these impacts would be reduced to a level less than significant under CEQA.

The Alternative 1-Alternative Transmission Line Corridor site is currently under agricultural production and is not utilized for mineral resource production. No known mineral resources occur within the project site and the project site does not contain mapped mineral resources (USGS, 1983). As such, the Alternative 1-Alternative Transmission Line Corridor would not adversely affect the availability of any known mineral resources within the project site. Thus, no significant impact under CEQA has been identified for this issue area.

C. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative geology/soils and mineral resources impact, which are the same indicators used in EIR/EA Section 4.6 for the effects of the Alternative 1-Alternative Transmission Line Corridor:

Indicator 1: Be located on expansive soil, as defined in the latest California Building Code, creating substantial risk to life or property;

Indicator 2: *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

- *i. Rupture of a known earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Map;*
- *ii. Strong seismic ground shaking;*
- *iii. Seismic-related ground failure, including liquefaction; or,*
- *iv. Landslides.*

Indicator 3: *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslides, lateral spreading, subsidence, liquefaction or collapse;*

Indicator 4: *Result in substantial soil erosion or loss of topsoil;*

Indicator 5: *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state;*

Indicator 6: *Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan; or,*

Indicator 7: *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.*

Impact Analysis

Cumulative development would result in an increase in population and development that could be exposed to hazardous geological conditions, depending on the location of proposed developments. Geologic and soil conditions are typically site specific and can be addressed through appropriate engineering practices. Cumulative impacts to geologic resources would be considered significant under CEQA if the Alternative 1-Alternative Transmission Line Corridor would be impacted by geologic hazard(s) and if the impact could combine with offsite geologic hazards to be cumulatively considerable. Implementation of the Alternative 1-Alternative Transmission Line Corridor will result in site-specific geology and soils impacts under CEQA. However, with the implementation of Mitigation Measure GS1, as identified in Section 4.6 of this EIR/EA, these impacts will be reduced to a level less than significant under CEQA. Geologic conditions in the Southern California region will essentially be the same regardless of the amount of development. Therefore, the cumulative geologic impact is considered less than significant under CEQA.

With regards to Mineral Resources, no mineral resources are located on the project site. Therefore, in conjunction with other cumulative projects, the Alternative 1-Alternative Transmission Line Corridor would not result in a cumulatively significant impact under CEQA to mineral resources.

5.2.2.7 Cultural Resources

A. Geographic Scope and Timeframe

The geographic scope for the analysis of cumulative impacts related to cultural resources is the Mt. Signal Area.

B. Existing Conditions

As discussed in EIR/EA Section 3.7, 20 sites are located within the Alternative 1-Alternative Transmission Line Corridor APE.

C. Effects of the Alternative 1-Alternative Transmission Line Corridor

As discussed in EIR/EA Section 4.7, 20 sites are located within the Alternative 1-Alternative Transmission Line Corridor APE. The Alternative 1-Alternative Transmission Line Corridor would result in significant impacts to two previously recorded sites located within the APE during construction of the project. However, Mitigation Measure CR1 will ensure that project impacts do not rise to the level of significance pursuant to CEQA.

There is a potential for indirect effects to sites adjacent to the Alternative 1-Alternative Transmission Line Corridor APE due to increased traffic during construction. It is also possible that grading within the construction area could increase the amount of runoff during heavy rainfall events. There are eight sites that are adjacent to the direct impacts that may be indirectly impacted by the Alternative 1-Alternative Transmission Line Corridor. However, Mitigation Measure CR2 will ensure that project impacts do not rise to the level of significance pursuant to CEQA.

During construction and operational repair periods of the Alternative 1-Alternative Transmission Line Corridor, grading, excavation, and trenching will be required to repair buried utilities or other buried infrastructure. Subsurface excavation activities always have some potential to impact previously unknown archaeological subsurface resources. However, Mitigation Measure CR3 will ensure that project impacts do not rise to the level of significance pursuant to CEQA. Furthermore, Mitigation Measure CR4 will ensure that potential project impacts to previously unknown human remains do not rise to the level of significance pursuant to CEQA.

With the implementation of Mitigation Measures CR1 through CR4, as identified in Section 4.7 of this EIR/EA, cultural resource impacts would be reduced to a level less than significant under CEQA.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative cultural resources impact, which are the same indicators used in EIR/EA Section 4.7 for the effects of the Alternative 1-Alternative Transmission Line Corridor:

Indicator 1: *An adverse effect is found when an undertaking may alter, directly or indirectly, and of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be further removed in distance or be cumulative. Adverse effects on historic properties include, but are not limited to:*

- *i. Physical destruction of or damage to all or part of the property;*
- *ii. Isolation of the property from or alteration of the character of the property's setting when that character contributes to the property's qualification for the National Register;*
- *iii. Removal of the property from its historic location;*
- *iv. Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;*

v. *Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;*

vi. *Neglect of the property, resulting in its deterioration or destruction; or*

vii. *Transfer, lease, or sale of the property.*

Indicator 2: *The project causes a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the State CEQA Guidelines. This shall include the destruction, disturbance, or any alteration of characteristics or elements of a resource that cause it to be significant in a manner not consistent with the Secretary of the Interior Standards.*

Indicator 3: *The project causes a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the State CEQA Guidelines. This shall include the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains or has the potential to contain information important to history or prehistory.*

Indicator 4: *The project disturbs any human remains, including those interred outside of formal cemeteries.*

Impact Analysis

As discussed in EIR/EA Section 4.7, 20 sites are located within the Alternative 1-Alternative Transmission Line Corridor APE. Of the 20 sites within the Alternative 1-Alternative Transmission Line Corridor APE, two sites would be directly impacted and eight sites would be indirectly impacted with implementation of the Alternative 1-Alternative Transmission Line Corridor. In addition, there is a potential for unknown archaeological subsurface resources and previously unknown human remains to be impacted during subsurface excavation. However, with the implementation of Mitigation Measures CR1 through CR4, as identified in Section 4.7 of this EIR/EA, cultural resource impacts would be reduced to a level less than significant under CEQA.

As with the Alternative 1-Alternative Transmission Line Corridor, cumulative projects would be required to provide similar mitigation for any impacts to cultural resources to reduce the impacts to a level less than significant under CEQA. Therefore, the Alternative 1-Alternative Transmission Line Corridor would not contribute to a significant cumulative cultural resources impact under CEQA.

5.2.2.8 Noise

A. Geographic Scope and Timeframe

The geographic scope for considering cumulative noise impacts on sensitive receptors is the area immediately surrounding the potentially sensitive receptors in the vicinity of the Alternative 1-Alternative Transmission Line Corridor site.

B. Existing Conditions

Ambient noise levels were measured at two noise monitoring locations. The measurements collected reflect ambient sound levels representative of the extremely rural agricultural setting of the Alternative 1-Alternative Transmission Line Corridor. The major source of existing noise at the first noise monitoring location was from the infrequent movement of U.S. Border Patrol units. The major source of existing noise at the second noise monitoring location was entirely from background community and far-field noise.

C. Effects of the Alternative 1-Alternative Transmission Line Corridor

During the construction phases of the Alternative 1-Alternative Transmission Line Corridor, short-term noise will be generated associated with the operation of various construction equipment. However, construction activities must adhere to the construction time periods of 7 a.m. to 7 p.m., Monday through Friday, and 9 a.m. to 5 p.m. Saturday. No commercial construction operations are permitted on Sunday or holidays. Furthermore, construction equipment noise exceedances above the 75 dBA Leq noise threshold would not be significant as there are no sensitive receptors located within or immediately adjacent to the project site. Therefore, short-term noise generated during construction activities is not considered a significant impact under CEQA.

Project-related traffic noise would exceed above the 3.0 dBA CEQA screening threshold on Pulliam Road between State Route 98 and Anza Road. However, no sensitive receptors are located along this roadway segment that would be adversely impacted by construction traffic due to the Alternative 1-Alternative Transmission Line Corridor. Therefore, the Alternative 1-Alternative Transmission Line Corridor's contribution to off-site roadway noise levels is not considered a significant impact under CEQA.

No operational noise impact would occur with implementation of the Alternative 1-Alternative Transmission Line Corridor. All onsite fixed uses within the Alternative 1-Alternative Transmission Line Corridor would be required to meet the operational noise standards of the County of Imperial Codified Ordinances Division 7 Noise Abatement and Control. The Alternative 1-Alternative Transmission Line Corridor would comply with this ordinance. Therefore, onsite operational noise is not considered a significant impact under CEQA.

Similar to the Proposed Action, the Alternative 1-Alternative Transmission Line Corridor is expected to generate a total of 15 vehicle trips per day during the operational phase. The vehicle trips per day would be minimal due to the minimal amount of workers required for the Alternative 1-Alternative Transmission Line Corridor (four full-time employees) during operations. As such, the Alternative 1-Alternative Transmission Line Corridor is not expected to result in a significant off-site traffic generated noise impact under CEQA.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative noise impact, which are the same indicators used in EIR/EA Section 4.8 for the effects of the Alternative 1-Alternative Transmission Line Corridor:

Indicator 1: *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (i.e., above 75 dB Leq measured at nearest sensitive receptor);*

Indicator 2: *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;*

Indicator 3: *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. This impact will occur if: (1) the future noise level after the project is completed will be within the "normally acceptable" noise levels shown in Table 3.8-3 for Industrial, Manufacturing, Utilities and Agriculture uses (70 dB) and will result in an increase of 5 dB CNEL or greater; (2) the future noise level after the project is completed will be greater than the "normally acceptable" noise levels shown in Table 3.8-3 for Industrial, Manufacturing, Utilities and Agriculture uses (70 dB) and will result in a noise increase of 3 dB CNEL or greater; (3) community noise exposure will be greater than the "normally acceptable" 70 dB for "Industrial, Manufacturing, Utilities, and Agricultural" category of land use as shown in Table 3.8-3; (4) construction noise will be greater than 75 dB Leq over an eight hour period from the nearest sensitive receptor (see Indicator 1); (5) the project will generate traffic and increase noise levels on off-site roadways above 3.0 dBA measured from the nearest sensitive receptor;*

Indicator 4: *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;*

Indicator 5: *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels; or,*

Indicator 6: *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.*

Impact Analysis

There are no cumulative projects located near enough to Alternative 1-Alternative Transmission Line Corridor site to contribute to cumulative adverse noise impacts. Cumulative projects that are not located within the immediate vicinity of the Alternative 1-Alternative Transmission Line Corridor site would be outside of the geographic scope of the consideration of noise impact. Therefore, construction (short-term) and operational (long-term) noise generated by the Alternative 1-Alternative Transmission Line Corridor would not contribute to cumulative noise impacts under CEQA. Furthermore, with the implementation of Mitigation Measures B2 and B5 through B6, as identified in Section 4.12 of this EIR/EA, for burrowing owls and sensitive bird species, there would be no cumulative noise impact under CEQA to these sensitive biological resources.

5.2.2.9 Agricultural Resources

A. Geographic Scope and Timeframe

The geographic scope of cumulative impacts related to agricultural resources is Imperial County.

B. Existing Conditions

The 946.6 gross acre (838 net buildable acres) solar energy facility portion of the project site is located on privately-owned, undeveloped and agricultural lands. A majority of this portion of the project site is currently used for agricultural purposes (alfalfa production). According to the 2004 FMMP, the site contains approximately 820.7 acres of land designated as Prime Farmland and Farmland of Statewide Importance.

C. Effects of the Alternative 1-Alternative Transmission Line Corridor

Similar to the Proposed Action, the project under Alternative1- Alternative Transmission Line Corridor will result in the permanent loss of 820.7 acres of agricultural lands designated as Prime Farmland and Farmland of Statewide Importance. In addition, the project under Alternative 1-Alternative Transmission Line Corridor is not consistent with certain Agricultural Element Goals and Objectives of the County of Imperial General Plan and mitigation is required for the project. A Land Evaluation Site Assessment analysis has been prepared in accordance with the methodology recommended by the California Department of Conservation and the conversion of existing land on the project site to other uses has been determined to be significant under CEQA. Mitigation Measure AR1, as identified in Section 4.9 of this EIR/EA, would be required to either procure Agricultural Conservation Easements on a 1 to 1 basis for all 820.7 acres, of similar quality farmland, outside of the path of development or pay an in-lieu mitigation fee. Implementation of Mitigation Measure AR1 would reduce this impact to a level less than significant under CEQA.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative agricultural resources impact, which are the same indicators used in EIR/EA Section 4.9 for the effects of the Alternative 1-Alternative Transmission Line Corridor:

Indicator 1: *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use;*

Indicator 2: *Conflict with existing zoning for agricultural use, or a Williamson Act contract; or,*

Indicator 3: *Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.*

Impact Analysis

Similar to the Proposed Action, the project under Alternative 1-Alternative Transmission Line Corridor will result in the permanent loss of 820.7 acres of Prime Farmland and Farmland of Statewide Importance. However, with the implementation of Mitigation Measure AR1, as identified in Section 4.9 of this EIR/EA, this impact would be reduced to a level less than significant under CEQA. As with Alternative 1-Alternative

Transmission Line Corridor, cumulative projects would be required to provide mitigation for any impacts to agricultural resources; therefore, the project under Alternative 1-Alternative Transmission Line Corridor would not contribute to a significant cumulative agricultural resources impact under CEQA. The cumulative loss of agricultural resources in the County is considered significant, and mitigation would be required pursuant to County policy for any project that proposes the conversion of agricultural land.

5.2.2.10 Health, Safety and Hazardous Materials/Fire and Fuels Management

A. Geographic Scope

Similar to the Proposed Action, the geographic scope considered for cumulative impacts from health, safety and hazardous materials/fire and fuels management is the area within 1 mile of the boundary of the Alternative 1-Alternative Transmission Line Corridor site.

B. Existing Conditions

Similar to the Proposed Action, the Alternative 1-Alternative Transmission Line Corridor site contains some areas where hazardous materials may be present. These include the potential presence of pesticides/herbicide residue and scattered trash and debris. The Alternative 1-Alternative Transmission Line Corridor site is currently and was recently used for agricultural purposes, and as such contamination from pesticides and herbicides is a potential hazard.

C. Effects of the Alternative 1-Alternative Transmission Line Corridor

Potential hazardous materials currently on or near the solar energy facility portion of the project site include pesticides and herbicides, and scattered trash and debris. There is a potential for residual low-level concentrations of pesticides and herbicides to be present in soil and/or groundwater. However, the Federal Insecticide, Fungicide, and Rodenticide Act authorizes the legitimate application of herbicides and pesticides used in accordance with manufacturer prescribed and labeled instructions. Therefore, the potential presence of low concentrations of agricultural chemicals on the solar energy facility site is considered less than significant under CEQA.

Similar to the Proposed Action, the Alternative 1-Alternative Transmission Line Corridor site contains scattered trash and debris. In addition, during project construction and operation of the solar facility, herbicides will be used for weed management. These are considered significant impacts under CEQA. However, with implementation of Mitigation Measures HM1 and HM2, as identified in Section 4.10 of this EIR/EA, these impacts would be reduced to below a level of significance under CEQA.

Prior to construction, a Hazardous Material Management Program (HMMP) will be developed and implemented. The HMMP will be in accordance with federal and state requirements. Due to these provisions, a less than significant impact under CEQA is identified related to the transport and use of hazardous materials during construction and operation of the Alternative 1-Alternative Transmission Line Corridor. No significant fire hazard impact under CEQA would occur with implementation of the Alternative 1-Alternative Transmission Line Corridor because a Fire Protection Prevention Plan will be implemented.

The potential impact of the proposed transmission line on human health is considered less than significant under CEQA due to its proposed location within a designated utility corridor and the extremely rural agricultural setting of the surrounding area.

Lastly, the proposed facility presents an unlikely target for an intentionally destructive act and has an extremely low probability of attack. Preventative measures (fences, gates, lighting) and safeguards (cameras and gatehouse) for the facility would restrict vehicle access and deter intentionally destructive acts. As such, no significant environmental impacts under CEQA would be expected from physical damage to the Alternative 1-Alternative Transmission Line Corridor or from loss of power delivery.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative health, safety, and hazardous materials/fire and fuels management impact, which are the same indicators used in EIR/EA Section 4.10 for the effects of the Alternative 1-Alternative Transmission Line Corridor:

Indicator 1: *Be included on a list of hazardous materials sites;*

Indicator 2: *Release hazardous materials into the environment;*

Indicator 3: *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;*

Indicator 4: *Routinely transport, use or dispose of hazardous materials;*

Indicator 5: *Be located within a vicinity of a private airstrip that would result in a safety hazard for people residing or working in the project area;*

Indicator 6: *Be located within an airport land use plan or within two miles of a public airport or public use airport;*

Indicator 7: *Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan; and*

Indicator 8: *Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.*

Similar to the Proposed Action, there are no cumulative projects located in proximity to the Alternative 1-Alternative Transmission Line Corridor site to contribute to cumulative adverse health, safety and hazardous materials impacts/fire and fuels management. Cumulative projects that are not located within 1 mile of the boundary of the Alternative 1-Alternative Transmission Line Corridor site would be outside of the geographic scope of the consideration of an impact. Furthermore, the health, safety and hazardous materials/fire and fuels management conditions are limited to the Alternative 1-Alternative Transmission Line Corridor site and would be mitigated with implementation of Mitigation Measures HM1 and HM2, as

identified in Section 4.10 of this EIR/EA. Thus, development of the Alternative 1-Alternative Transmission Line Corridor would not contribute to a significant, cumulative health, safety and hazardous materials/fire and fuels management impact under CEQA.

5.2.2.11 Hydrology and Water Quality

A. Geographic Scope and Timeframe

Similar to the Proposed Action, the geographic scope for considering cumulative hydrology and water quality impacts is the County of Imperial for the Alternative 1-Alternative Transmission Line Corridor.

B. Existing Conditions

The existing drainage patterns at the solar energy facility site indicates that onsite storm runoff ponds in many locations. Agricultural fields on both the east and west sides of the Westside Main Canal generally drain to the northeast. Existing irrigation ditches and culverts around the perimeter of many of the fields also convey runoff. The fields are currently used for agriculture and the existing drainage facilities are operational.

The solar energy facility site is in area determined to be outside of the 0.2% annual chance floodplain.

The impaired waterbodies listed on the 303(d) list include the New River and Salton Sea.

C. Effects of the Alternative 1-Alternative Transmission Line Corridor

The runoff on the solar energy facility portion of the Alternative 1-Alternative Transmission Line Corridor site would be intercepted and collected at various points. Drainage infrastructure would include detention basins, perimeter channels, and existing drains and culverts. According to hydrograph analyses, runoff peak flows and volumes generated by the site will be reduced in the proposed developed condition. This is a result of the change in land use from agriculture to a solar energy facility and the drainage infrastructure. Similar to the Proposed Action, implementation of the Alternative 1-Alternative Transmission Line Corridor would not contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems. Therefore, no significant hydrology impact under CEQA has been identified.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, the project site is located in Zone X, which is an area determined to be outside of the 0.2% annual chance floodplain. As such, the potential flood hazard associated with a 100-year floodplain or failure of a dam is considered less than significant under CEQA.

Contamination associated with urban non-point source pollution (e.g., grease, oils, sediment, and heavy metals) could enter the on-site detention basins as a result of construction or post-construction related activities, resulting in potentially significant water quality impacts under CEQA. However, compliance with regulations concerning a National Discharge Pollution Discharge Elimination System (NPDES) general permit, as well as rules found in the Federal Clean Water Act, Section 402(p)(1) and 40 CFR 122.26, and implemented Order No. 90-42 of the California Regional Water Quality Control Board, would reduce water quality impacts

below a level of significance under CEQA. This issue is considered less than significant. In addition, implementation of Mitigation Measure HWQ1, as identified in Section 4.11 of this EIR/EA, will reduce water quality impacts to a level less than significant under CEQA.

According to the biological technical report prepared by RECON Environmental Inc. (Appendix I-1), a significant impact to jurisdictional resources under CEQA is anticipated from widening of the access road and construction of the transmission line corridor. However, with the implementation of Mitigation Measure B7, as identified in Section 4.12 of this EIR/EA, this impact will be reduced to a level less than significant under CEQA.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative hydrology and water quality impact, which are the same indicators used in EIR/EA Section 4.11 for the effects of the Alternative 1-Alternative Transmission Line Corridor:

Indicator 1: *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which will result in substantial erosion or siltation on- or off-site;*

Indicator 2: *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which will result in flooding on- or off-site;*

Indicator 3: *Create or contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;*

Indicator 4: *Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;*

Indicator 5: *Place within a 100-year flood hazard area structures that will impede or redirect flood flows;*

Indicator 6: *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam;*

Indicator 7: *Inundate by seiche, tsunami, or mudflow;*

Indicator 8: *Violate any water quality standards or waste discharge requirements;*

Indicator 9: *Otherwise substantially degrade water quality; and/or,*

Indicator 10: *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells will drop to*

a level which will not support existing land uses or planned uses for which permits have been granted).

Impact Analysis

Similar to the Proposed Action, the construction of the solar energy facility portion of the Alternative 1-Alternative Transmission Line Corridor is expected to result in short-term water quality impacts. It is expected that some of the cumulative projects, which are not yet built, could be under construction at the same time as the Alternative 1-Alternative Transmission Line Corridor. Therefore, substantial short-term cumulative water quality impacts may occur during simultaneous construction of the Alternative 1-Alternative Transmission Line Corridor and other cumulative projects. However, compliance with regulations concerning a National Discharge Pollution Discharge Elimination System (NPDES) general permit, as well as rules found in the Federal Clean Water Act, Section 402(p)(1) and 40 CFR 122.26, and implemented Order No. 90-42 of the California Regional Water Quality Control Board, would reduce water quality impacts below a level of significance under CEQA. As with the Alternative 1-Alternative Transmission Line Corridor, each of the cumulative projects would be required to comply with the regulations listed above for water quality impacts identified for the specific cumulative project. Therefore, the Alternative 1-Alternative Transmission Line Corridor would not result in cumulative water quality impacts under CEQA.

The Alternative 1-Alternative Transmission Line Corridor is not expected to result in long-term impacts related to water quality under CEQA. Although it is expected that some of the cumulative projects would be operational at the same time as the Alternative 1-Alternative Transmission Line Corridor, the Alternative 1-Alternative Transmission Line Corridor would mitigate water quality impacts by implementing site design, source control, and treatment control BMPs. Therefore, the Alternative 1-Alternative Transmission Line Corridor would not result in cumulative water quality impacts under CEQA.

5.2.2.12 Biological Resources

A. Geographic Scope and Timeframe

The geographic scope for considering cumulative impacts on biological resources is the flat-tailed horned lizard (FTHL) habitat in California.

B. Existing Conditions

Vegetation communities were mapped within the survey area, include creosote bush-white burr sage scrub, desert saltbush scrub, desert wash (smoke tree woodland mix), cattail marsh, arrow weed thicket, tamarisk thicket, and active agricultural fields.

Priority plant species observed on-site include Wolf's cholla, Thurber's pilostyles, and Parish's desert thorn. Sensitive animal species observed throughout the site include the flat-tailed horned lizard, Colorado Desert fringe-toed lizard, Crissal thrasher, and Yellow warbler.

No ACOE wetland areas were identified within the ISEC-South survey area. Some man-made features (e.g., farm drains/ditches) that occur within the survey area are potentially exempt from ACOE jurisdiction.

Jurisdictional non-wetland waters within the Imperial Solar Energy Center-South project survey area include one or more ephemeral drainages and a large expanse of the Pinto Wash alluvial fan that appears to occur within the active floodplain.

C. Effects of the Alternative 1-Alternative Transmission Line Corridor

Similar to the Proposed Action, the Alternative 1-Alternative Transmission Line Corridor has the potential to result in impacts to sensitive vegetation communities, flat-tailed horned lizards, burrowing owls, nesting raptors, migratory birds and other sensitive non-migratory bird species, and jurisdictional resources. However, with the implementation of Mitigation Measures B2 through B7 and B8 through B9, these impacts would be reduced to a level of less than significant under CEQA.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative biological resources impact, which are the same indicators used in EIR/EA Section 4.12 for the effects of the Alternative 1-Alternative Transmission Line Corridor:

Indicator 1: *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game and U.S. Fish and Wildlife Service;*

Indicator 2: *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;*

Indicator 3: *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filing, hydrological interruption, or other means;*

Indicator 4: *Interfere substantially with the movement of any native resident or migratory fish and wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;*

Indicator 5: *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and/or,*

Indicator 6: *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

Impact Analysis

The Alternative 1-Alternative Transmission Line Corridor has the potential to result in biological resources impacts. However, with the implementation of Mitigation Measures B2 through B7 and B8 through B9, these impacts would be reduced to a level of less than significant under CEQA. As with The Alternative 1-

Alternative Transmission Line Corridor, each of the following cumulative projects would be required to provide mitigation for any impacts to biological resources; therefore, the Alternative 1-Alternative Transmission Line Corridor would not contribute to a significant cumulative biological resources impact.

As shown in Table 5-12, existing and Proposed Actions are expected to impact a total of 301.9 acres of the 60,200-acre Yuha MA; approximately 0.5 percent of the 1% of take allowable within the Yuma MA. These impacts, still under the 1% threshold for impacts acreage, will be mitigated in accordance with the RMS, thereby reducing impacts to a level less than significant under CEQA.

5.2.2.13 Paleontological Resources

A. Geographic Scope and Timeframe

The geographic scope for the analysis of cumulative impacts related to paleontological resources is the Imperial Valley portion of the Salton Trough physiographic province of Southern California.

B. Existing Conditions

Similar to the Proposed Action, the Alternative 1-Alternative Transmission Line Corridor site (which includes the solar energy facility and transmission corridor) and surrounding Imperial Valley is directly underlain by geologic units comprised of quaternary lake deposits of the ancient Lake Cahuilla. Lakebed deposits of ancient Lake Cahuilla have yielded fossil remains from numerous localities in Imperial Valley. Therefore, the paleontological sensitivity of these lakebed deposits within the project site boundary is considered to be high.

In addition, the BLM uses a Potential Fossil Yield Classification (PFYC) System that classifies the paleontological resource sensitivity for geologic units and assists in determining proper mitigation approaches for surface disturbing activities. The PFYC uses five classes, with Class 1 being Very Low Potential and Class 5 being Very High Potential. According to the BLM's PFYC System, the lakebed deposits of ancient Lake Cahuilla located within the project site is identified as Class 4b. Class 4b is defined by the BLM as an area underlain by geologic units with high potential to yield fossils but have lowered risks of human-caused adverse impacts and/or lowered risk of natural degradation due to alluvial material, or other conditions that may lessen or prevent potential impacts to the bedrock resulting from the activity. Management concern for paleontological resources in Class 4 is moderate to high, depending on the proposed action. Similar to the Proposed Action, for the Alternative 1-Alternative Transmission Line Corridor, the management concern for paleontological resources is considered to be high.

C. Effects of the Alternative 1-Alternative Transmission Line Corridor

Similar to the Proposed Action, paleontological resources potentially located on the Alternative 1-Alternative Transmission Line Corridor site could be adversely affected during construction of the solar energy facility and transmission lines as a result of disturbance by grading or construction activities; unauthorized, unmonitored excavations; unauthorized collection of fossil materials; dislodging of fossils from their preserved environment; and/or, physical damage of fossil specimens. However, with the

implementation of Mitigation Measures PR1 through PR5, as identified in Section 4.13 of this EIR/EA, paleontological resource impacts during construction would not be adverse under CEQA.

No significant impacts under CEQA to paleontological resources are anticipated during operation of the Alternative 1-Alternative Transmission Line Corridor.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative paleontological resources impact, which are the same indicators used in EIR/EA Section 4.13 for the effects of the Alternative 1-Alternative Transmission Line Corridor:

Indicator 1: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Impact Analysis

Cumulative development in the Imperial Valley portion of the Salton Trough physiographic province of Southern California has the potential to directly or indirectly destroy paleontological resources. Similar to the Proposed Action, there is a potential for paleontological resources on the Alternative 1-Alternative Transmission Line Corridor site to be impacted during construction of the Alternative 1-Alternative Transmission Line Corridor. However, with the implementation of Mitigation Measures PR1 through PR5, as identified in Section 4.13 of this EIR/EA, paleontological resource impacts would be reduced to a level less than significant under CEQA. As with the Alternative 1-Alternative Transmission Line Corridor, cumulative projects would be required to provide mitigation for any impacts to paleontological resources; therefore, the Alternative 1-Alternative Transmission Line Corridor would not contribute to a significant cumulative paleontological resources impact under CEQA.

5.2.2.14 Socioeconomics and Environmental Justice

A. Geographic Scope and Timeframe

Similar to the Proposed Action, the geographic scope of cumulative impacts related to socioeconomics and environmental justice is Imperial County for the Alternative 1-Alternative Transmission Line Corridor.

B. Existing Conditions

The unemployment rates (not seasonally adjusted) for Imperial County, the State of California, and the United States for June 2010 were 27.6 percent, 12.2 percent, and 9.6 percent, respectively. Imperial County's unemployment rate substantially exceeds that of the State of California and the United States.

The three largest sectors with the largest employment in Imperial County are agriculture, government, trade, transportation and utilities. Like many other sectors in Imperial County, these three sectors have experienced job loss due to the recent downturn in the economy.

The Alternative 1-Alternative Transmission Line Corridor is located within census tract that has predominately Hispanic or Latino ethnic composition of the overall population. The median household income in this census tract is $32,273. As such, this census tract is considered a low-income and minority neighborhood.

C. Effects of the Alternative 1-Alternative Transmission Line Corridor

Similar to the Proposed Action, the Alternative 1-Alternative Transmission Line Corridor would not trigger any other development that would place socioeconomic/environmental justice burdens on the County of Imperial and nearby cities.

The Alternative 1-Alternative Transmission Line Corridor is expected to consist of 250 workers during the temporary construction phase. During operations and maintenance of the proposed facilities, approximately four fulltime personnel would be required. Some of the workers would be recruited locally and available through the existing labor pool, and some would be specialized technical workers from outside of the local area. Most workers are expected to stay in local hotels or rental housing units. Based on the available regional housing stock, there are anticipated to be more than enough vacant homes to support any project-related immigration under the Alternative 1-Alternative Transmission Line Corridor. Thus, the construction of the Alternative 1-Alternative Transmission Line Corridor would place a negligible, temporary demand on housing, which is not considered a significant impact under CEQA.

Imperial County predominately consists of minority and low-income individuals. However, the Alternative 1-Alternative Transmission Line Corridor is considered a public benefit and would not result in environmental effects to the minority population residing within and surrounding the Imperial County area. The Alternative 2-Reduced Solar Energy Facility Site would not displace any residents or traverse an established community because the project would be located on agricultural land and within a designated utility corridor.

Similar to the Proposed Action, the Alternative 1-Alternative Transmission Line Corridor will provide beneficial effects on the surrounding area by providing social and environmental benefits, promoting stable electricity prices, reducing reliance on imported fuels, protecting public health, and benefits to communities with minority or low-income populations by creating local employment opportunities.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative socioeconomics and environmental justice impact, which are the same indicators used in EIR/EA Section 4.14 for the effects of the Alternative 1-Alternative Transmission Line Corridor:

Indicator 1: *Induce substantial growth in an area, either directly or indirectly;*

Indicator 2: *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere;*

Indicator 3: *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere*;

Indicator 4: *Result in adverse effects or impacts that are appreciably more severe in magnitude or are predominately borne by any segment of the population, for example, household population with low income or a minority population in comparison with a population that is not low income or minority.*

Impact Analysis

The Alternative 1-Alternative Transmission Line Corridor, in conjunction with other cumulative projects would benefit Imperial County in the short-term by creating local construction work, and in the long-term with work associated with the operation of projects. Like the Alternative 1-Alternative Transmission Line Corridor, cumulative projects could have similar beneficial impacts because the construction and operation of the projects would provide local employment, which in turn could lower the unemployment rate in Imperial County. In addition, no substantial adverse socioeconomic impacts under CEQA on housing or the displacement of residents would occur with implementation of the Alternative 1-Alternative Transmission Line Corridor due to the location of the project site on agricultural land and land designated for utility corridors. Therefore, the Alternative 1-Alternative Transmission Line Corridor is anticipated to contribute to beneficial socioeconomic effects and would not contribute to any cumulative adverse socioeconomic impacts under CEQA in Imperial County.

5.2.2.15 Recreation

A. Geographic Scope and Timeframe

The geographic scope for the analysis of cumulative impacts related to recreation includes the local and regional recreation facilities in the County of Imperial.

B. Existing Conditions

As discussed in EIR/EA Section 3.15, the solar energy facility site is located on private land designated for agricultural use in the County of Imperial and is not designated or zoned for recreation use. The transmission line corridor would be located within an area currently designated by the BLM as Utility Corridor "N." The entire transmission line corridor is located within the Yuha Desert Recreation Lands. The CDCA Plan designates this area as Multiple-Use L (Limited Use), which is suitable for recreation "...which generally involves low to moderate use densities." The Limited Use designation also limits all motorized travel to designated routes. Based on the *Western Colorado Desert Routes of Travel Designations,* there are no open routes designated on the transmission line corridor site.

In addition, California State Parks administers several recreational areas located in the general vicinity of the overall project site.

C. Effects of the Alternative 1-Alternative Transmission Line Corridor

Alternative 1-Alternative Transmission Line Corridor would be on the same project site as the Proposed Action. Similar to the Proposed Action, the transmission line corridor would be developed within the designated Utility Corridor "N" and the proposed use/improvements of a portion of an existing access road are located on existing BLM lands and would not preclude the use of adjacent BLM lands for OHV

recreation. The Alternative 1-Alternative Transmission Line Corridor involves widening an existing dirt road, which a portion of which traverses BLM lands for construction and operation access to the solar site. This road is designated as "open" and is therefore available for OHV use. The project would not preclude, or alter the continuation of this use. In addition, Alternative 1-Alternative Transmission Line Corridor would not develop access roads that would create a corridor for OHV use.

With regards to the solar energy facility site and the portion of the access road within private land, similar to the Proposed Action, Alternative 1-Alternative Transmission Line Corridor would not increase the use of a existing recreational facility and does not the include the construction of a recreational facility. Therefore, similar to the Proposed Action, Alternative1-Alternative Transmission Line Corridor would not result in an impact under CEQA to recreation.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative recreation impact, which are the same indicators used in EIR/EA Section 4.15 for the effects of the Alternative 1-Alternative Transmission Line Corridor:

Indicator 1: *Directly or indirectly disrupt recreation activities in established Federal, State, or local recreation areas and/or wilderness areas;*

Indicator 2: *Substantially reduce the scenic, biological, cultural, geologic, or other important factors that contribute to the value of Federal, State, local, or private recreational facilities or wilderness areas; and/or,*

Indicator 3: *Diminish the enjoyment of existing recreational opportunities.*

Indicator 4: *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; and/or,*

Indicator 5: *Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.*

Impact Analysis

Similar to the Proposed Action, the Alternative 1-Alternative Transmission Line Corridor would not preclude the surrounding BLM lands to be used for recreational uses. These BLM lands would be able to continue recreational activities that are permitted within their specified use designations. Furthermore, the solar energy facility portion of the Alternative 1-Alternative Transmission Line Corridor does not involve the construction of recreation facilities. The Alternative 1-Alternative Transmission Line Corridor would not contain a residential component that would increase the use of an existing neighborhood or regional park or other recreational facilities such that substantial physical deterioration would occur. Therefore, the Alternative 1-Alternative Transmission Line Corridor would not result in a cumulative impact under CEQA to recreation.

5.2.2.16 Special Designations

A. Geographic Scope and Timeframe

The geographic scope for considering cumulative impacts on Special Designations areas is the Yuha Desert Area ACEC.

B. Existing Conditions

Similar to the Proposed Action, the Alternative 1-Alternative Transmission Line Corridor does not have any special designations involving certain resources, including Wilderness Areas, donated lands, National Wild and Scenic Rivers, BLM designated range allotments or pasture for wildlife or livestock, and designated wilderness areas. However, the Alternative 1 transmission line corridor site is located within the Yuha Desert Area of Critical Environmental Concern under BLM jurisdiction.

C. Effects of the Alternative 1-Alternative Transmission Line Corridor

The BLM manages all land uses within the ACEC in order to minimize impact to this sensitive area. Similar to the Proposed Action, the Alternative 1-Alternative Transmission Line Corridor is an allowable use under the CDCA, as the proposed ROW for the transmission line corridor falls within the CDCA designated "Utility Corridor N." The access road traverses BLM lands is an existing designated dirt access road and is not located within the CDCA. Proposed impacts to biological resources discussed in EIR/EA Section 4.12.2 are in conformance with the CDCA and maintains the integrity and intent of the Conservation Plan. Therefore, the Alternative 1-Alternative Transmission Line Corridor would not conflict with the management goals of any special designation area.

D. Cumulative Impact Analysis

NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative special designations impact, which are the same indicators used in EIR/EA Section 4.16 for the effects of the Alternative 1-Alternative Transmission Line Corridor:

Indicator 1: Conflict with the management goals of any special designation area.

Impact Analysis

Similar to the Proposed Action, the Alternative 1-Alternative Transmission Line Corridor is an allowable use under the CDCA. The proposed impacts to resources are in conformance with the CDCA and maintains the integrity and intent of the Conservation Plan. Furthermore, the Alternative 1-Alternative Transmission Line Corridor would not have impacts on Wilderness Areas, donated lands, National Wild and Scenic Rivers, BLM designated range allotments or pasture for wildlife or livestock, and designated wilderness areas. As such, the Alternative 1-Alternative Transmission Line Corridor would not contribute to cumulative impacts on any resources within these special designations.

5.2.3 Alternative 2-Reduced Solar Energy Facility Site

5.2.3.1 Visual Resources

A. Geographic Scope and Timeframe

The geographic scope for the analysis of cumulative impacts related to visual resources is within a distance of five or less miles of the Alternative 2-Reduced Solar Energy Facility Site.

B. Existing Conditions

Imperial County contains a wealth of scenic visual resources, which include desert areas, sand hills, mountains, and the Salton Sea.

Similar to the Proposed Action, existing views onto the project site are available from the surrounding areas, specifically from SR-98, Pulliam Road, Anza Road and Cook Road. Due to the flat topography of the site and the surrounding area, besides the existing transmission lines located within the BLM transmission corridor, the access road and solar energy facility site are not readily visible from many viewpoints, and there are no unique topographical features associated with the site. Based on the visibility analysis, the site is only visible from immediately adjacent roads. The only portion of the project that is visible from more distant surrounding roads are the transmission lines and towers that currently traverse BLM lands.

C. Effects of the Alternative 2-Reduced Solar Energy Facility Site

Similar to the Proposed Action, the Alternative 2-Reduced Solar Energy Facility Site is not located in a designated scenic vista, nor has the County of Imperial General Plan designated the project site as an important visual resource. None of the roadways abutting or surrounding the project site are designated or proposed scenic roadways. No historic structures or significant scenic resources exist on the Alternative 2-Reduced Solar Energy Facility site. In addition, the Juan Bautista de Anza Matil Historic Trail is located approximately 5 miles west of the Alternative 2-Reduced Solar Energy Facility Site site; this trail has a potential to be identified as a scenic resource; however, due to its distance from the project site and flat topography of the land within the project area, the project site is not readily visible from this trail. There is the potential that the transmission facilities could be visible along portions of the trail; however, the proposed transmission towers would be similar in use and scale as the existing towers and transmission facilities in the area. Therefore, development of the Alternative 2-Reduced Solar Energy Facility Site would not have a substantial adverse effect under CEQA on a scenic vista or damage scenic resources. In addition, none of the KOPs described in Section 3.1 of this EIR/EA are identified as a scenic vista.

Construction of the Alternative 2-Reduced Solar Energy Facility Site would alter the existing visual character of the area and its surroundings as a result of converting agricultural land to a solar energy facility. However, due to the flat topography of the site and surrounding area; location of the project site that is removed from most public views within an area surrounded by existing agriculture land; and, the installation of the perimeter fencing the equipment proposed to be installed on the project site would not be visible from any surrounding view point. In addition, the site would not be visible from any designated scenic resources or scenic highways. Furthermore, the Alternative 2-Reduced Solar Energy Facility Site

would require approval of a CUP by the County of Imperial that would allow for the construction and operation of the proposed solar energy facility on a project site zoned for agriculture. As such, with approval of the CUP, the proposed solar energy facility would be consistent with the allowed uses on the agricultural land and would not conflict with the surrounding land uses. Therefore, this issue is considered less than significant under CEQA.

The proposed transmission line corridor will be located within a designated utility corridor and the transmission line will be similar to the existing transmission facilities located within this corridor, no impacts to visual resources within BLM lands would occur. Therefore, because the proposed transmission line corridor would be similar to the existing corridor and the project site is designated for such use, implementation of the Alternative 2-Reduced Solar Energy Facility Site would not substantially degrade the existing visual character or quality of the site and its surroundings. Therefore, this issue is considered less than significant.

Similar to the solar energy facility site, the access road is not visible from any KOPs or designated scenic highways or vistas. As such, the widening and use of this road would not result in a significant impact under CEQA to visual resources.

With regards to light and glare, as discussed in Section 4.1 of this EIR/EA, the Alternative 2-Reduced Solar Energy Facility Site would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area and would not impact users of the area (e.g., campers, stargazers, and recreational users of the desert, etc.) Therefore, no significant impact under CEQA is identified for this issue area.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative visual resources impact, which are the same indicators used in EIR/EA Section 4.1 for the effects of the Alternative 2-Reduced Solar Energy Facility Site:

Indicator 1: *Have a substantial adverse effect on a scenic vista;*

Indicator 2: *Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway;*

Indicator 3: *Substantially degrade the existing visual character or quality of the site and its surroundings; and/or,*

Indicator 4: *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.*

Impact Analysis

As discussed in EIR/EA Section 4.1, no visual resources impacts have been identified. Development of the Alternative 2-Reduced Solar Energy Facility Site in conjunction with the cumulative projects will gradually

change the visual character of this portion of the Imperial Valley. However, the projects are being designed in accordance with the County of Imperial's General Plan and Land Use Ordinance. The visual character will change from rural, agricultural vistas to one with urban characteristics; however, these changes are not characterized as degradation. Furthermore, the proposed use and widening of the existing access road that traverses both BLM lands and private land is not visible from any designated scenic resources or KOPs and the Proposed Action would not substantially change the visual character of the access road. Therefore, the Alternative 2-Reduced Solar Energy Facility Site would not result in cumulatively significant visual resource impact under CEQA.

5.2.3.2 Land Use

A. Geographic Scope and Timeframe

The geographic scope for the analysis of cumulative impacts related to land use is the County of Imperial.

B. Existing Conditions

The solar energy facility portion of the Alternative 2-Reduced Solar Energy Facility Site is located on undeveloped and agricultural lands, in the unincorporated Mt. Signal area of the County of Imperial. The proposed transmission line corridor would be located within BLM lands. The proposed access road traverses both BLM lands and private land. Land use plans and policies that are applicable to the project site include the County of Imperial General Plan, the County of Imperial Land Use Ordinance, Airport Land Use Compatibility Plan, Southern California Association of Government's Regional Comprehensive Plan and Regional Transportation Plan, Federal Aviation Regulations Part 77, Federal Land Management Act, 1976, California Desert Conservation Area Plan, Yuha Basin Area of Critical Environmental Concern (ACEC) Management Plan and Flat-tailed Horned Lizard Rangewide Management Strategy.

C. Effects of the Alternative 2-Reduced Solar Energy Facility Site

The Alternative 2-Reduced Solar Energy Facility Site would conflict with the County's Agricultural goals and objectives, and the implementation of Mitigation Measure AR2, as identified in Section 4.9 of this EIR/EA, is required pursuant to County policy in order to reduce the impact to a level less than significant. As part of the Alternative 2-Reduced Solar Energy Facility Site, a CUP application has been filed, which would allow the uses of the Alternative 2-Reduced Solar Energy Facility Site to occur within the A-2-R and A-3 zones. As such, the Alternative 2-Reduced Solar Energy Facility Site is consistent with all other land use plans for the project area. The transmission towers are proposed to be located within Utility Corridor "N" and no plan amendment would be required. In addition, the proposed widening and use of the existing access road, would require a right of way permit from the BLM and secured easements from property owners; however, use of this road for construction and maintenance would not prohibit or diminish the existing vehicular use of the road by others.

Potential impacts to biological resources will occur with implementation of the Alternative 2-Reduced Solar Energy Facility Site. However, Mitigation Measures B3, B4, and B11 (as identified in Section 4.12 of this EIR/EA) have been identified to address potential direct and indirect impacts under CEQA to biological resources located within the Yuha Basin Area of Critical Environmental Concern Management Plan.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative land use impact, which are the same indicators used in EIR/EA Section 4.2 for the effects of the Alternative 2-Reduced Solar Energy Facility Site:

Indicator 1: *Physically divide an established community;*

Indicator 2: *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or Land Use Ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; and/or,*

Indicator 3: *Conflict with the any applicable habitat conservation plan or natural community conservation plan.*

Impact Analysis

As discussed in EIR/EA Section 4.2 of this EIR/EA, the Alternative 2-Reduced Solar Energy Facility Site would conflict with the County's Agricultural goals and objectives and has the potential to impact biological resources within the Yuha Basin ACEC. However with implementation of Mitigation Measures AR2, B3, B4, and B11, as identified in Sections 4.9 and 4.11 of this EIR/EA, these impacts under CEQA would be reduced to a level less than significant. The Alternative 2-Reduced Solar Energy Facility Site is consistent with all other land use plans for the project area. Therefore, no land use compatibility impact has been identified, and implementation of the Alternative 2-Reduced Solar Energy Facility Site would not contribute to a significant cumulative land use compatibility impact in the County of Imperial. The Alternative 2-Reduced Solar Energy Facility Site, in conjunction with other development in Imperial County, is not anticipated to result in a significant cumulative land use impact under CEQA.

5.2.3.3 Transportation/Circulation

A. Geographic Scope and Timeframe

The geographic scope of the cumulative analysis for transportation/circulation for Alternative 2-Reduced Solar Energy Facility Site is the same as the Proposed Action, discussed above. The geographic scope is based on the roadways in the vicinity of the project site that may be impacted by traffic generated by the Proposed Action and cumulative projects, which include Interstate 8 (I-8), Brockman Road, Drew Road, Forrester Road, McCabe Road, Pulliam Road, and State Route 98 (SR-98). Figure 3.3-1 depicts the existing roadways conditions of the roadways that were analyzed in the Traffic Impact Analysis (Appendix B of this EIR/EA).

The Traffic Impact Analysis identifies cumulative projects in the vicinity of the project site that would potentially add traffic to the study area roadways and contribute to a cumulative impact. These projects are expected to be developed by Year 2012. In addition, for the traffic generating cumulative projects, for

the forecasted Horizon Year (2030) conditions, a growth factor of 7.37 percent was added, which applied to the sum of the other cumulative traffic volumes. The cumulative projects are listed above in Section 5.1.

Similar to the Proposed Action, as discussed above, Alternative 2-Reduced Solar Energy Facility Site would only result in short-term impacts related to construction activities. No long-term impacts related to the operations of the project are identified.

B. Existing Conditions

Similar to the Proposed Action, as discussed in Section 3.3 of this EIR/EA, the affected environment for transportation/circulation under Alternative 2-Reduced Solar Energy Facility Site is based on the existing traffic conditions of the roadways within the vicinity of the project site. Based on analysis provided in the Traffic Impact Analysis (Appendix B of this EIR/EA) during the existing Year 2008 conditions all intersections operate at LOS C or better during both the weekday AM and PM peak hours; all roadway segments currently operate at LOS A; and, all freeway segments operate at LOS B or better. During the Year 2012 conditions, all intersections operate at LOS C or better during both the weekday AM and PM peak hours; all roadway segments operate at LOS B or better; and, all freeway segments operate at LOS B or better.

C. Effects of the Alternative 1-Alternative Transmission Line Corridor

Similar to the Proposed Action, as discussed in Section 4.3 of this EIR/EA, the Alternative 2-Reduced Solar Energy Facility Site is anticipated to start construction in September 2011 and be completed by January 2013. The construction phase of the project would generate approximately 680 ADT, whereas, the operations and maintenance of the project is estimated to generate 10 to 15 ADT. As such, the higher and more conservative construction trip generation, although short-term in nature, was used to determine potential project impacts. Therefore, construction related traffic was added to the Year 2012 conditions to analyze short-term construction related impacts. As discussed in Section 4.3 of this EIR/EA, with the addition of the construction traffic onto Year 2012 conditions, no direct impacts under CEQA to intersections or roadway segments were identified.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative transportation/circulation impact, which are the same indicators used in EIR/EA Section 4.3 for the effects of the Alternative 2-Reduced Solar Energy Facility Site:

Indicator 1: *Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections);*

Indicator 2: *Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways;*

Indicator 3: *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);*

Indicator 4: *Result in inadequate emergency access;*

Indicator 5: *Result in inadequate parking capacity; or,*

Indicator 6: *Conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).*

Impact Analysis

Year 2012 plus Cumulative Conditions

Similar to the Proposed Action, as discussed above, under Year 2012 plus cumulative conditions, the study intersections and roadways were calculated to operate at LOS C or better, except for:

- Intersection of Forrester Road to I-8 EB Ramp (LOS F PM); and,
- Intersection of SR-98 at Clark Road (LOS F PM).

Year 2012 Plus Cumulative Plus Project Conditions

Similar to the Proposed Action, under Year 2012 plus cumulative plus Alternative 2-Reduced Solar Energy Facility Site project conditions, the study area intersections and roadways were calculated to operate at LOS C or better, except for:

- Intersection of Forrester Road to I-8 EB Ramp (LOS F, PM); and,
- Intersection of SR-98 at Clark Road (LOS F, PM).

Similar to the Proposed Action, the addition of the Alternative 2-Reduced Solar Energy Facility Site trips to the Year 2012 plus cumulative conditions would result in a cumulatively significant impact under CEQA to both of the intersections noted above. The cumulative impacts to these intersections are due to background traffic growth from surrounding new development. If a majority of the proposed new development does not materialize, then the cumulatively impacted intersections may continue to operate at acceptable levels of service and would not require mitigation. Therefore, it is recommended that a mitigation monitoring and reporting program be established to determine if the two aforementioned intersections would operate at un-acceptable LOS starting in year 2012 and beyond annually until the project construction is completed. If un-acceptable LOS is document in year 2012, then fair share or payment of applicable Transportation Impact fee is recommended as the mitigation measure. As such, with the implementation of Mitigation Measure CUM1, as described above under the Proposed Action, these impacts would be reduced to a level less than significant under CEQA.

Horizon Year (2030) Plus Project Conditions

Similar to the Proposed Action, the Horizon Year plus Alternative 2-Reduced Solar Energy Facility Site project segment operations are provided in Table 5-11. Under Horizon Year 2030 plus Alternative 2-Reduced Solar Energy Facility Site project conditions, the study area roadway segments were calculated to operate at LOS C or better based on the study segments being built to Year 2030 roadway classifications. Therefore, no impact under CEQA is identified for this issue area.

In summary, implementation of the Alternative 2-Reduced Solar Energy Facility Site would result in a significant, but mitigable cumulative transportation/circulation impact under CEQA.

5.2.3.4 Air Quality

A. Geographic Scope and Timeframe

Similar to the Proposed Action, the Salton Sea Air Basin (SSAB) is used as the geographic scope for the analysis of cumulative air quality impacts for the project under Alternative 2-Reduced Solar Energy Facility Site.

B. Existing Conditions

Currently, the SSAB is either in attainment or unclassified for all federal and state air pollution standards with the exception of O_3 (8-hour) and PM_{10}. Imperial County is classified as a non-attainment area for PM_{10} and 8-hour O_3 for the National Ambient Air Quality Standards (NAAQS). It should be noted that the U.S. EPA issued a final ruling determining that Imperial County attained the 1997 8-hour NAAQS for ozone. However, the determination did not constitute a re-designation to an "attainment" status under the Clean Air Act. Therefore, the designation status for Imperial County remains as a "moderate" non-attainment area of the 1997 8-hour ozone NAAQS. Imperial County is required to submit the 2009 8-hour Ozone "Modified" Air Quality Management Plan to the U.S. EPA for approval.

C. Effects of the Alternative 2-Reduced Solar Energy Facility Site

Similar to the Proposed Action, a significant air quality impact would result if the Grading Emissions phase were to remain unmitigated at the Tier 0 (Baseline). During the Grading Emissions phase, NOx emissions would exceed ICAPCD's threshold. No significant air quality impact would occur from the operations phase of the Alternative 2-Reduced Solar Energy Facility Site due to the limited number of staff required (a total of four full-time employees) to travel on and offsite. Air quality impacts as a result of construction emissions would be short-term caused by air emissions generated during construction activities and emissions generated in the form of dust associated with soil disturbance (i.e., unpaved road travel). However, implementation of Mitigation Measures AQ1 and AQ2, as identified in Section 4.4 of this EIR/EA, would reduce this impact to a level less than significant under CEQA.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative air quality impact, which are the same indicators used in EIR/EA Section 4.4 for the effects of the Alternative 2-Reduced Solar Energy Facility Site:

Indicator 1: *Violate any air quality standard or contribute substantially to an existing or projected air quality violation;*

Indicator 2: *Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality*

standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

Indicator 3: *Expose sensitive receptors to substantial pollutant concentrations;*

Indicator 4: *Create objectionable odors affecting a substantial number of people; and,*

Indicator 5: *Conflict with or obstruct implementation of the applicable air quality plan.*

Impact Analysis

Similar to the Alternative 2-Reduced Solar Energy Facility Site, cumulative projects are anticipated to emit air pollutants generated during construction activities associated with engine combustion gases and dust generation associated with vehicle travel on unpaved roads. Although air quality impacts associated with construction emissions would be short-term, additional emissions of criteria pollutants generated from the project under Alternative 2-Reduced Solar Energy Facility Site along with cumulative projects would significantly impact the air quality in the SSAB. However, the Alternative 2-Reduced Solar Energy Facility Site would implement Mitigation Measures AQ1 and AQ2, as identified in Section 4.4 of this EIR/EA, to reduce the level of impact to below a level of significance under CEQA. Cumulative projects are required to comply with ICAPCD's Rules and Regulations to mitigate air quality impacts associated with construction emissions to below a level of significance under CEQA.

Similar to the Proposed Action, the operational phase of the Alternative 2-Reduced Solar Energy Facility Site would not result in a considerable increase of criteria pollutants because operational vehicle trips are small and would generate criteria pollutants under 2.0 pounds per day, which is below the level of significance under CEQA. In addition, the criteria pollutants generated by the project's electricity demand are less than significant even when combined with vehicle trip-related criteria pollutant emissions.. Therefore, the Alternative 2-Reduced Solar Energy Facility Site would not result in cumulative air quality impacts under CEQA associated with operational emissions.

5.2.3.5 Greenhouse Gas Emissions

A. Geographic Scope and Timeframe

The EPA and CARB regulate the GHG emission levels within the United States and more locally within the State of California. As such, GHG emission impacts are considered a global effects and the Earth's atmosphere is used as the geographic scope for analysis of greenhouse gas emissions impacts.

The cumulative impacts study area and cumulative projects considered in the cumulative impacts analysis for climate change are discussed in above. Similar to the Proposed Action, net greenhouse gas emission impacts would result in the short-term emissions during construction activities and not during the long-term operational phase of the Alternative 2-Reduced Solar Energy Facility Site.

B. Existing Conditions

The solar energy facility site is currently utilized for agricultural production, specifically alfalfa crops. The current activities of the site emit a small amount of GHG emissions, associated with the operation of mechanical farm equipment and vehicles.

The transmission line corridor site is currently desert land under the jurisdiction of the BLM. There are currently no man-made sources of GHGs on the transmission line corridor site. As such, there are no existing "point source" GHG emissions at the site.

C. Effects of the Proposed Action

Short-term Construction Related GHG Impacts

Similar to the Proposed Action, Alternative 2-Reduced Solar Energy Facility Site would contribute a total of 2,281 metric tons of CO_{2e} due to construction activities. This is below both the NEPA and CEQA thresholds of significance. However, the project would still be required to be consistent with the intent of AB 32; therefore, with the implementation of Mitigation Measures GHG1 and GHG2, as identified in Section 4.5 Greenhouse Gas Emissions of this EIR/EA, a less than significant greenhouse gas emissions impact under CEQA is identified with the implementation of the Alternative 2-Reduced Solar Energy Facility Site.

Long-term Operational based GHG Impacts

Similar to the Proposed Action, during the operational phase of the Alternative 2-Reduced Solar Energy Facility Site, CO_2 produced by non-generation consumption would be 5.82 MW-h x 0.301 MT/MW-h = 1.75 metric tons per day. Annually the Alternative 2-Reduced Solar Energy Facility Site would produce 688.75 metric tons per year of CO_2, which is below the NEPA threshold of 25,000 metric tons or the CEQA threshold of 10,000 metric tons of CO_{2e} per year. Therefore, the Alternative 2-Reduced Solar Energy Facility Site would not result in a long-term greenhouse gas emission impact under CEQA.

Indirect Impacts

Similar to the Proposed Action, the Alternative 2-Reduced Solar Energy Facility Site would assist in alleviating dependence on fossil fuels and would provide an overall benefit to air quality by providing a clean, renewable energy source. Table 4.5-6 provides the estimated criteria pollutant emission rates from fossil-based power generation in the California grid mix and the amount of emissions displaced by the project annually.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

The following indicators were used to analyze cumulative greenhouses gas emissions impact, which are the same indicators used in EIR/EA Section 4.5 for the effects of the Proposed Action:

Indicator 1: *Generate greenhouse gas emissions of 25,000 metric tons or more of CO_2-equivalent GHG emissions on an annual basis.*

Indicator 2: *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment* (Generate GHG emissions of *10,000 metric tons of CO2-equivalent GHG emissions on an annual basis).*

Indicator 3: *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.*

Impact Analysis

No single project emit's enough GHG into the atmosphere to create a direct environmental impact from global warming. By its nature, GHG impact analysis is a cumulative impact analysis. As discussed in EIR/EA Section 4.5, similar to the Proposed Action, the Alternative 2-Reduced Solar Energy Facility Site will implement Mitigation Measure AQ1 (as identified in EIR/EA Section 4.4 Air Quality) to ensure that the Alternative 2-Reduced Solar Energy Facility Site GHG impacts are less than significant under CEQA. In addition, Mitigation Measures GHG1 and GHG2 (as identified in EIR/EA Section 4.5 Greenhouse Gas Emissions) will be implemented with the Alternative 2-Reduced Solar Energy Facility Site various mitigation measures, even though they are not required to mitigate an impact but rather required to ensure the project is consistent with the intent of AB 32 and that would help to off-set the potential Greenhouse Gas Emissions associated with the Alternative 2-Reduced Solar Energy Facility Site. These measures are identified in EIR/EA Section 4.5 Greenhouse Gas Emissions. The Greenhouse Gas/Global Warming Risk Assessment (see EIR/EA Appendix C2 and EIR/EA Section 4.5) also provides a quantification of the greenhouse gas emissions associated with the project. The analysis identifies a less than significant impact to GHG emissions and global warming. Furthermore, the Alternative 2-Reduced Solar Energy Facility Site would assist in alleviating dependence on fossil fuels and would provide an overall benefit to air quality by providing a clean, renewable energy source. Furthermore, the Alternative 2-Reduced Solar Energy Facility Site is estimated to off-set approximately 183,600 tons of CO_2 equivalents annually from the atmosphere. Therefore, the Alternative 2-Reduced Solar Energy Facility Site would not contribute to a cumulatively significant greenhouse gas emissions impact under CEQA.

5.2.3.6 Geology/Soils and Mineral Resources

A. Geographic Scope and Timeframe

Similar to the Proposed Action, the Imperial Valley portion of the Salton Trough physiographic province of Southern California is used as the geographic scope for the analysis of cumulative impacts on geology/soils and mineral resources for the Alternative 2-Reduced Solar Energy Facility Site.

B. Existing Conditions

Imperial County is located in the Imperial Valley portion of the Salton Trough physiographic province of Southern California. This area is a seismically active region and may be subject potential hazards that occur from seismic activities such as ground shaking, surface rupture, liquefaction, and landslides.

C. Effects of the Alternative 2-Reduced Solar Energy Facility Site

As is common in most of Southern California, the Alternative 2-Reduced Solar Energy Facility Site is located within a seismically active region. The Alternative 2-Reduced Solar Energy Facility Site is likely to be subject

to at least one moderate to major earthquake during the design of the structures. However, similar to the Proposed Action, the project under Alternative 2-Reduced Solar Energy Facility Site must comply with the most recent California Building Code (CBC) requirements.

Similar to the Proposed Action, the site-specific geology impacts that have the potential to occur on the Alternative 2-Reduced Solar Energy Facility Site include liquefaction, differential settlement, and the presence of expansive and corrosive soils. These geology impacts are considered significant under CEQA. However, with the implementation of Mitigation Measure GS1, as identified in Section 4.6 of this EIR/EA, these impacts would be reduced to a level less than significant under CEQA.

The Alternative 2-Reduced Solar Energy Facility Site is currently under agricultural production and is not utilized for mineral resource production. No known mineral resources occur within the project site and the project site does not contain mapped mineral resources (USGS, 1983). As such, the Alternative 2-Reduced Solar Energy Facility Site would not adversely affect the availability of any known mineral resources within the project site. Thus, no significant impact under CEQA has been identified for this issue area.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative geology/soils and mineral resources impact, which are the same indicators used in EIR/EA Section 4.6 for the effects of the Alternative 2-Reduced Solar Energy Facility Site:

Indicator 1: Be located on expansive soil, as defined in the latest California Building Code, creating substantial risk to life or property;

Indicator 2: *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

- *i. Rupture of a known earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Map;*
- *ii. Strong seismic ground shaking;*
- *iii. Seismic-related ground failure, including liquefaction; or,*
- *iv. Landslides.*

Indicator 3: *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslides, lateral spreading, subsidence, liquefaction or collapse;*

Indicator 4: *Result in substantial soil erosion or loss of topsoil;*

Indicator 5: *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state;*

Indicator 6: *Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan; or,*

Indicator 7: *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.*

Impact Analysis

Cumulative development would result in an increase in population and development that could be exposed to hazardous geological conditions, depending on the location of proposed developments. Geologic and soil conditions are typically site specific and can be addressed through appropriate engineering practices. Cumulative impacts to geologic resources would be considered significant under CEQA if the Alternative 2-Reduced Solar Energy Facility Site would be impacted by geologic hazard(s) and if the impact could combine with offsite geologic hazards to be cumulatively considerable. Implementation of the Alternative 2-Reduced Solar Energy Facility Site will result in site-specific geology and soils impacts under CEQA. However, with the implementation of Mitigation Measure GS1, as identified in Section 4.6 of this EIR/EA, these impacts will be reduced to a level less than significant under CEQA. Geologic conditions in the Southern California region will essentially be the same regardless of the amount of development. Therefore, the cumulative geologic impact is considered less than significant under CEQA.

With regards to Mineral Resources, no mineral resources are located on the project site. Therefore, in conjunction with other cumulative projects, the Alternative 2-Reduced Solar Energy Facility Site would not result in a cumulatively significant impact under CEQA to mineral resources.

5.2.3.7 Cultural Resources

A. Geographic Scope and Timeframe

The geographic scope for the analysis of cumulative impacts related to cultural resources is the Mt. Signal Area.

B. Existing Conditions

As discussed in EIR/EA Section 3.7, 19 sites are located within the Alternative 2-Reduced Solar Energy Facility Site.

C. Effects of the Alternative 2-Reduced Solar Energy Facility Site

As discussed in EIR/EA Section 4.7, 19 sites are located within the Alternative 2-Reduced Solar Energy Facility Site APE. The Alternative 2-Reduced Solar Energy Facility Site would result in significant impacts to the same two previously recorded sites located within the APE which are impacted by the Proposed Action. However, Mitigation Measure CR1 will ensure that project impacts do not rise to the level of significance pursuant to CEQA.

There is a potential for indirect effects to sites adjacent to the Alternative 2-Reduced Solar Energy Facility Site APE due to increased traffic during construction. It is also possible that grading within the construction area could increase the amount of runoff during heavy rainfall events. There are seven sites that are

adjacent to the direct impacts that may be indirectly impacted by the Alternative 2-Reduced Solar Energy Facility Site. However, Mitigation Measure CR2 will ensure that project impacts do not rise to the level of significance pursuant to CEQA.

During construction and operational repair periods of the Alternative 2-Reduced Solar Energy Facility Site, grading, excavation, and trenching will be required to repair buried utilities or other buried infrastructure. Subsurface excavation activities always have some potential to impact previously unknown archaeological subsurface resources. However, Mitigation Measure CR3 will ensure that project impacts do not rise to the level of significance pursuant to CEQA. Furthermore, Mitigation Measure CR4 will ensure that potential project impacts to previously unknown human remains do not rise to the level of significance pursuant to CEQA.

With the implementation of Mitigation Measures CR1 through CR4, as identified in Section 4.7 of this EIR/EA, cultural resource impacts would be reduced to a level less than significant under CEQA.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative cultural resources impact, which are the same indicators used in EIR/EA Section 4.7 for the effects of the Alternative 2-Reduced Solar Energy Facility Site:

Indicator 1: *An adverse effect is found when an undertaking may alter, directly or indirectly, and of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be further removed in distance or be cumulative. Adverse effects on historic properties include, but are not limited to:*

- *i. Physical destruction of or damage to all or part of the property;*
- *ii. Isolation of the property from or alteration of the character of the property's setting when that character contributes to the property's qualification for the National Register;*
- *iii. Removal of the property from its historic location;*
- *iv. Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;*
- *v. Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;*

vi. Neglect of the property, resulting in its deterioration or destruction; or

vii. Transfer, lease, or sale of the property.

Indicator 2: *The project causes a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the State CEQA Guidelines. This shall include the destruction, disturbance, or any alteration of characteristics or elements of a resource that cause it to be significant in a manner not consistent with the Secretary of the Interior Standards.*

Indicator 3: *The project causes a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the State CEQA Guidelines. This shall include the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains or has the potential to contain information important to history or prehistory.*

Indicator 4: *The project disturbs any human remains, including those interred outside of formal cemeteries.*

Impact Analysis

As discussed in EIR/EA Section 4.7, 19 sites are located within the Alternative 2-Reduced Solar Energy Facility Site APE. Of the 19 sites within the Alternative 2-Reduced Solar Energy Facility Site APE, two sites would be directly impacted and seven sites would be indirectly impacted with implementation of the Alternative 2-Reduced Solar Energy Facility Site. In addition, there is a potential for unknown archaeological subsurface resources and previously unknown human remains to be impacted during subsurface excavation. However, with the implementation of Mitigation Measures CR1 through CR4, as identified in Section 4.7 of this EIR/EA, cultural resource impacts would be reduced to a level less than significant under CEQA.

As with the Alternative 2-Reduced Solar Energy Facility Site, cumulative projects would be required to provide similar mitigation for any impacts to cultural resources to reduce the impacts to a level less than significant under CEQA. Therefore, the Alternative 2-Reduced Solar Energy Facility Site would not contribute to a significant cumulative cultural resources impact under CEQA.

5.2.3.8 Noise

A. Geographic Scope and Timeframe

The geographic scope for considering cumulative noise impacts on sensitive receptors is the area immediately surrounding the potentially sensitive receptors in the vicinity of the Alternative 2-Reduced Solar Energy Facility Site.

B. Existing Conditions

Ambient noise levels were measured at two noise monitoring locations. The measurements collected reflect ambient sound levels representative of the extremely rural agricultural setting of the Alternative 2-Reduced Solar Energy Facility Site. The major source of existing noise at the first noise monitoring location

was from the infrequent movement of U.S. Border Patrol units. The major source of existing noise at the second noise monitoring location was entirely from background community and far-field noise.

C. Effects of the Alternative 2-Reduced Solar Energy Facility Site

During the construction phases of the Alternative 2-Reduced Solar Energy Facility Site, short-term noise will be generated associated with the operation of various construction equipment. However, construction activities must adhere to the construction time periods of 7 a.m. to 7 p.m., Monday through Friday, and 9 a.m. to 5 p.m. Saturday. No commercial construction operations are permitted on Sunday or holidays. Furthermore, construction equipment noise exceedances above 75 dBA Leq noise threshold would not be significant as there are no sensitive receptors located within or immediately adjacent to the project site. Therefore, short-term noise generated during construction activities is not considered a significant impact under CEQA.

Project-related traffic noise would exceed above the 3.0 dBA CEQA screening threshold on Pulliam Road between State Route 98 and Anza Road. However, no sensitive receptors are located along this roadway segment that would be adversely impacted by construction traffic due to the Alternative 2-Reduced Solar Energy Facility Site. Therefore, the Alternative 2-Reduced Solar Energy Facility Site's contribution to off-site roadway noise levels is not considered a significant impact under CEQA.

No operational noise impact would occur with implementation of the Alternative 2-Reduced Solar Energy Facility Site. All onsite fixed uses within the Alternative 2-Reduced Solar Energy Facility Site would be required to meet the operational noise standards of the County of Imperial Codified Ordinances Division 7 Noise Abatement and Control. The Alternative 2-Reduced Solar Energy Facility Site would comply with this ordinance. Therefore, onsite operational noise is not considered a significant impact under CEQA.

Similar to the Proposed Action, the Alternative 2-Reduced Solar Energy Facility Site is expected to generate a total of 15 vehicle trips per day during the operational phase. The vehicle trips per day would be minimal due to the minimal amount of workers required for the Alternative 2-Reduced Solar Energy Facility Site (four full-time employees) during operations. As such, the Alternative 2-Reduced Solar Energy Facility Site is not expected to result in a significant off-site traffic generated noise impact under CEQA.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative noise impact, which are the same indicators used in EIR/EA Section 4.8 for the effects of the Alternative 2-Reduced Solar Energy Facility Site:

Indicator 1: *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (i.e., above 75 dB Leq measured at nearest sensitive receptor);*

Indicator 2: *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;*

Indicator 3: *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. This impact will occur if: (1) the future noise level after the project is completed will be within the "normally acceptable" noise levels shown in Table 3.8-3 for Industrial, Manufacturing, Utilities and Agriculture uses (70 dB) and will result in an increase of 5 dB CNEL or greater; (2) the future noise level after the project is completed will be greater than the "normally acceptable" noise levels shown in Table 3.8-3 for Industrial, Manufacturing, Utilities and Agriculture uses (70 dB) and will result in a noise increase of 3 dB CNEL or greater; (3) community noise exposure will be greater than the "normally acceptable" 70 dB for "Industrial, Manufacturing, Utilities, and Agricultural" category of land use as shown in Table 3.8-3; (4) construction noise will be greater than 75 dB Leq over an eight hour period from the nearest sensitive receptor (see Indicator 1); (5) the project will generate traffic and increase noise levels on off-site roadways above 3.0 dBA measured from the nearest sensitive receptor;*

Indicator 4: *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;*

Indicator 5: *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels; or,*

Indicator 6: *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.*

Impact Analysis

There are no cumulative projects located near enough to Alternative 2-Reduced Solar Energy Facility Site to contribute to cumulative adverse noise impacts. Cumulative projects that are not located within the immediate vicinity of the Alternative 2-Reduced Solar Energy Facility Site would be outside of the geographic scope of the consideration of noise impact. Therefore, construction (short-term) and operational (long-term) noise generated by the Alternative 2-Reduced Solar Energy Facility Site would not contribute to cumulative noise impacts under CEQA. Furthermore, with the implementation of Mitigation Measures B2 and B5 through B6, as identified in Section 4.12 of this EIR/EA, for burrowing owls and sensitive bird species, there would be no cumulative noise impact under CEQA to these sensitive biological resources.

5.2.3.9 Agricultural Resources

A. Geographic Scope and Timeframe

The geographic scope of cumulative impacts related to agricultural resources is Imperial County.

B. Existing Conditions

The reduced 476 acre solar energy facility portion of the project site is located on privately-owned, undeveloped and agricultural lands. A majority of this portion of the project site is currently used for agricultural purposes (alfalfa production). According to the 2004 FMMP, the site contains land designated as Prime Farmland and Farmland of Statewide Importance.

C. Effects of the Alternative 2-Reduced Solar Energy Facility Site

Implementation of the Alternative 2-Reduced Solar Energy Facility Site would reduce the amount of land currently in agricultural production that would be converted to non-agricultural uses as compared to the Proposed Action. Approximately 458.77 acres of agricultural land would be converted. Based on the LESA analysis prepared for Alternative 2-Reduced Solar Energy Facility Site, the conversion of existing farmlands on the project site to other uses is considered a significant impact under CEQA. However, Mitigation Measure AR2, as identified in Section 4.9 of this EIR/EA, would be required to either procure Agricultural Conservation Easements on a 1 to 1 basis for all 458.77 acres, of similar quality farmland, outside of the path of development or pay an in-lieu mitigation fee. Implementation of Mitigation Measure AR2 would reduce this impact to a level less than significant under CEQA.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative agricultural resources impact, which are the same indicators used in EIR/EA Section 4.9 for the effects of the Alternative 2-Reduced Solar Energy Facility Site:

Indicator 1: *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use;*

Indicator 2: *Conflict with existing zoning for agricultural use, or a Williamson Act contract; or,*

Indicator 3: *Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.*

Impact Analysis

The project under Alternative 2-Reduced Solar Energy Facility Site will result in the permanent loss of 458.77 acres of Prime Farmland and Farmland of Statewide Importance. However, with the implementation of Mitigation Measure AR2, as identified in Section 4.9 of this EIR/EA, this impact would be reduced to a level less than significant under CEQA. As with the Alternative 2-Reduced Solar Energy Facility Site, cumulative projects would be required to provide mitigation for any impacts to agricultural resources; therefore, the project under Alternative 2-Reduced Solar Energy Facility Site would not contribute to a significant cumulative agricultural resources impact under CEQA. The cumulative loss of agricultural resources in the County is considered significant, and mitigation would be required pursuant to County policy for any project that proposes the conversion of agricultural land.

5.2.3.10 Health, Safety and Hazardous Materials/Fire and Fuels Management

A. Geographic Scope and Timeframe

Similar to the Proposed Action, the geographic scope considered for cumulative impacts from health, safety and hazardous materials/fire and fuels management is the area within 1 mile of the boundary of the Alternative 2-Reduced Solar Energy Facility Site.

B. Existing Conditions

Similar to the Proposed Action, the Alternative 2-Reduced Solar Energy Facility Site contains some areas where hazardous materials may be present. These include the potential presence of pesticides/herbicide residue and scattered trash and debris. The Alternative 2-Reduced Solar Energy Facility Site is currently and was recently used for agricultural purposes, and as such contamination from pesticides and herbicides is a potential hazard.

C. Effects of the Alternative 2-Reduced Solar Energy Facility Site

Potential hazardous materials currently on or near the solar energy facility portion of the project site include pesticides and herbicides, and scattered trash and debris. There is a potential for residual low-level concentrations of pesticides and herbicides to be present in soil and/or groundwater. However, the Federal Insecticide, Fungicide, and Rodenticide Act authorizes the legitimate application of herbicides and pesticides used in accordance with manufacturer prescribed and labeled instructions. Therefore, the potential presence of low concentrations of agricultural chemicals on the solar energy facility site is considered less than significant under CEQA.

Similar to the Proposed Action, the Alternative 2-Reduced Solar Energy Facility Site contains scattered trash and debris. In addition, during project construction and operation of the solar facility, herbicides will be used for weed management. These are considered significant impacts. However, with implementation of Mitigation Measures HM1 and HM2, as identified in Section 4.10 of this EIR/EA, these impacts would be reduced to below a level of significance under CEQA.

Prior to construction, a Hazardous Material Management Program (HMMP) will be developed and implemented. The HMMP will be in accordance with federal and state requirements. Due to these provisions, a less than significant impact under CEQA is identified related to the transport and use of hazardous materials during construction and operation of the Alternative 2-Reduced Solar Energy Facility Site. No significant fire hazard impact under CEQA would occur with implementation of the Alternative 2-Reduced Solar Energy Facility Site because a Fire Protection Prevention Plan will be implemented.

The potential impact of the proposed transmission line on human health is considered less than significant under CEQA due to its proposed location within a designated utility corridor and the extremely rural agricultural setting of the surrounding area.

Lastly, the proposed facility presents an unlikely target for an intentionally destructive act and has an extremely low probability of attack. Preventative measures (fences, gates, lighting) and safeguards

(cameras and gatehouse) for the facility would restrict vehicle access and deter intentionally destructive acts. As such, no significant environmental impacts under CEQA would be expected from physical damage to the Alternative 2-Reduced Solar Energy Facility Site or from loss of power delivery.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative health, safety, hazardous materials/fire and fuels management impact, which are the same indicators used in EIR/EA Section 4.10 for the effects of the Alternative 2-Reduced Solar Energy Facility Site:

Indicator 1: *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use;*

Indicator 2: *Conflict with existing zoning for agricultural use, or a Williamson Act contract; or,*

Indicator 3: *Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.*

Impact Analysis

Similar to the Proposed Action, there are no cumulative projects located in proximity to the Alternative 2-Reduced Solar Energy Facility Site to contribute to cumulative adverse health, safety and hazardous materials/fire and fuels management impacts. Cumulative projects that are not located within 1 mile of the boundary of the Alternative 2-Reduced Solar Energy Facility Site would be outside of the geographic scope of the consideration of an impact. Furthermore, the health, safety and hazardous materials/fire and fuels management conditions are limited to the Alternative 2-Reduced Solar Energy Facility Site and would be mitigated with implementation of Mitigation Measures HM1 and HM2, as identified in Section 4.10 of this EIR/EA. Thus, development of the Alternative 2-Reduced Solar Energy Facility Site would not contribute to a significant, cumulative health, safety and hazardous materials/fire and fuels management impact under CEQA.

5.2.3.11 Hydrology and Water Quality

A. Geographic Scope and Timeframe

Similar to the Proposed Action, the geographic scope for considering cumulative hydrology and water quality impacts is the County of Imperial for the Alternative 2-Reduced Solar Energy Facility Site.

B. Existing Conditions

The existing drainage patterns at the solar energy facility site indicates that onsite storm runoff ponds in many locations. Agricultural fields on both the east and west sides of the Westside Main Canal generally drain to the northeast. Existing irrigation ditches and culverts around the perimeter of many of the fields also convey runoff. The fields are currently used for agriculture and the existing drainage facilities are operational.

The solar energy facility site is in area determined to be outside of the 0.2% annual chance floodplain.

The impaired waterbodies listed on the 303(d) list include the New River and Salton Sea.

C. Effects of the Alternative 2-Reduced Solar Energy Facility Site

The runoff on the solar energy facility portion of the Alternative 2-Reduced Solar Energy Facility Site would be intercepted and collected at various points. Drainage infrastructure would include detention basins, perimeter channels, and existing drains and culverts. According to hydrograph analyses, runoff peak flows and volumes generated by the site will be reduced in the proposed developed condition. This is a result of the change in land use from agriculture to a solar energy facility and the drainage infrastructure. Similar to the Proposed Action, implementation of the Alternative 2-Reduced Solar Energy Facility Site would not contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems. Therefore, no significant hydrology impact under CEQA has been identified.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, the project site is located in Zone X, which is an area determined to be outside of the 0.2% annual chance floodplain. Similar to the Proposed Action, the potential flood hazard associated with a 100-year floodplain or failure of a dam is considered less than significant under CEQA.

Contamination associated with urban non-point source pollution (e.g., grease, oils, sediment, and heavy metals) could enter the on-site detention basins as a result of construction or post-construction related activities, resulting in potentially significant water quality impacts under CEQA. However, compliance with regulations concerning a National Discharge Pollution Discharge Elimination System (NPDES) general permit, as well as rules found in the Federal Clean Water Act, Section 402(p)(1) and 40 CFR 122.26, and implemented Order No. 90-42 of the California Regional Water Quality Control Board, would reduce water quality impacts below a level of significance under CEQA. This issue is considered less than significant. In addition, implementation of Mitigation Measure HWQ1, as identified in Section 4.11 of this EIR/EA, will reduce water quality impacts to a level less than significant under CEQA.

According to the biological technical report prepared by RECON Environmental Inc. (Appendix I-1), a significant impact to jurisdictional resources under CEQA is anticipated from widening of the access road and construction of the transmission line corridor. However, with the implementation of Mitigation Measure B7, as identified in Section 4.12 of this EIR/EA, this impact will be reduced to a level less than significant under CEQA.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative hydrology and water quality impact, which are the same indicators used in EIR/EA Section 4.11 for the effects of the Alternative 2-Reduced Solar Energy Facility Site:

Indicator 1: Be included on a list of hazardous materials sites;

Indicator 2: *Release hazardous materials into the environment;*

Indicator 3: *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;*

Indicator 4: *Routinely transport, use or dispose of hazardous materials;*

Indicator 5: *Be located within a vicinity of a private airstrip that would result in a safety hazard for people residing or working in the project area;*

Indicator 6: *Be located within an airport land use plan or within two miles of a public airport or public use airport;*

Indicator 7: *Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan; and*

Indicator 8: *Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.*

Impact Analysis

Similar to the Proposed Action, the construction of the solar energy facility portion of the Alternative 2-Reduced Solar Energy Facility Site is expected to result in short-term water quality impacts. It is expected that some of the cumulative projects, which are not yet built, could be under construction at the same time as the Alternative 2-Reduced Solar Energy Facility Site. Therefore, substantial short-term cumulative water quality impacts may occur during simultaneous construction of the Alternative 2-Reduced Solar Energy Facility Site and other cumulative projects. However, compliance with regulations concerning a National Discharge Pollution Discharge Elimination System (NPDES) general permit, as well as rules found in the Federal Clean Water Act, Section 402(p)(1) and 40 CFR 122.26, and implemented Order No. 90-42 of the California Regional Water Quality Control Board, would reduce water quality impacts below a level of significance under CEQA. As with the Alternative 2-Reduced Solar Energy Facility Site, each of the cumulative projects would be required to comply with the regulations listed above for water quality impacts identified for the specific cumulative project. Therefore, the Alternative 2-Reduced Solar Energy Facility Site would not result in cumulative water quality impacts under CEQA.

The Alternative 2-Reduced Solar Energy Facility Site is not expected to result in long-term impacts related to water quality under CEQA. Although it is expected that some of the cumulative projects would be operational at the same time as the Alternative 2-Reduced Solar Energy Facility Site, the Alternative 2-Reduced Solar Energy Facility Site would mitigate water quality impacts by implementing site design, source control, and treatment control BMPs. Therefore, the Alternative 2-Reduced Solar Energy Facility Site would not result in cumulative water quality impacts under CEQA.

5.2.3.12 Biological Resources

A. Geographic Scope and Timeframe

The geographic scope for considering cumulative impacts on biological resources is the flat-tailed horned lizard (FTHL) habitat in California.

B. Existing Conditions

Vegetation communities were mapped within the survey area, include creosote bush-white burr sage scrub, desert saltbush scrub, desert wash (smoke tree woodland mix), cattail marsh, arrow weed thicket, tamarisk thicket, and active agricultural fields.

Priority plant species observed on-site include Wolf's cholla, Thurber's pilostyles, and Parish's desert thorn. Sensitive animal species observed throughout the site include the flat-tailed horned lizard, Colorado Desert fringe-toed lizard, and Crissal thrasher.

No ACOE wetland areas were identified within the ISEC-South survey area. Some man-made features (e.g., farm drains/ditches) that occur within the survey area are potentially exempt from ACOE jurisdiction. Jurisdictional non-wetland waters within the Imperial Solar Energy Center-South project survey area include one or more ephemeral drainages and a large expanse of the Pinto Wash alluvial fan that appears to occur within the active floodplain.

C. Effects of the Alternative 2-Reduced Solar Energy Facility Site

Similar to the Proposed Action, the Alternative 2-Reduced Solar Energy Facility Site has the potential to result in impacts to sensitive vegetation communities, flat-tailed horned lizards, burrowing owls, nesting raptors, migratory birds and other sensitive non-migratory bird species, and jurisdictional resources. However, with the implementation of Mitigation Measures B2 through B7 and B10 through B11, these impacts would be reduced to a level of less than significant under CEQA.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative biological resources impact, which are the same indicators used in EIR/EA Section 4.12 for the effects of the Alternative 2-Reduced Solar Energy Facility Site:

Indicator 1: *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game and U.S. Fish and Wildlife Service;*

Indicator 2: *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;*

Indicator 3: *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filing, hydrological interruption, or other means;*

Indicator 4: *Interfere substantially with the movement of any native resident or migratory fish and wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;*

Indicator 5: *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and/or,*

Indicator 6: *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

Impact Analysis

The Alternative 2-Reduced Solar Energy Facility Site has the potential to result in biological resources impacts. However, with the implementation of Mitigation Measures B2 through B7 and B10 through B11, these impacts would be reduced to a level of less than significant under CEQA. As with The Alternative 2-Reduced Solar Energy Facility Site, each of the following cumulative projects would be required to provide mitigation for any impacts to biological resources; therefore, the Alternative 2-Reduced Solar Energy Facility Site would not contribute to a significant cumulative biological resources impact.

As shown in Table 5-12, existing and Proposed Actions are expected to impact a total of 301.9 acres of the 60,200-acre Yuha MA; approximately 0.5 percent of the 1% of take allowable within the Yuma MA. These impacts, still under the 1% threshold for impacts acreage, will be mitigated in accordance with the RMS, thereby reducing impacts to a level less than significant.

5.2.3.13 Paleontological Resources

A. Geographic Scope and Timeframe

The geographic scope for the analysis of cumulative impacts related to paleontological resources is the Imperial Valley portion of the Salton Trough physiographic province of Southern California.

B. Existing Conditions

Similar to the Proposed Action, the Alternative 2-Reduced Solar Energy Facility Site (which includes the solar energy facility and transmission corridor) and surrounding Imperial Valley is directly underlain by geologic units comprised of quaternary lake deposits of the ancient Lake Cahuilla. Lakebed deposits of ancient Lake Cahuilla have yielded fossil remains from numerous localities in Imperial Valley. Therefore, the paleontological sensitivity of these lakebed deposits within the project site boundary is considered to be high.

In addition, the BLM uses a Potential Fossil Yield Classification (PFYC) System that classifies the paleontological resource sensitivity for geologic units and assists in determining proper mitigation approaches for surface disturbing activities. The PFYC uses five classes, with Class 1 being Very Low

Potential and Class 5 being Very High Potential. According to the BLM's PFYC System, the lakebed deposits of ancient Lake Cahuilla located within the project site is identified as Class 4b. Class 4b is defined by the BLM as an area underlain by geologic units with high potential to yield fossils but have lowered risks of human-caused adverse impacts and/or lowered risk of natural degradation due to alluvial material, or other conditions that may lessen or prevent potential impacts to the bedrock resulting from the activity. Management concern for paleontological resources in Class 4 is moderate to high, depending on the proposed action. Similar to the Proposed Action, for the Alternative 2-Reduced Solar Energy Facility Site, the management concern for paleontological resources is considered to be high.

C. Effects of the Alternative 2-Reduced Solar Energy Facility Site

Similar to the Proposed Action, paleontological resources potentially located on the Alternative 2-Reduced Solar Energy Facility Site could be adversely affected during construction of the solar energy facility and transmission lines as a result of disturbance by grading or construction activities; unauthorized, unmonitored excavations; unauthorized collection of fossil materials; dislodging of fossils from their preserved environment; and/or, physical damage of fossil specimens. However, with the implementation of Mitigation Measures PR1 through PR5, as identified in Section 4.13 of this EIR/EA, paleontological resource impacts during construction would not be adverse under CEQA.

No significant impacts under CEQA to paleontological resources are anticipated during operation of the Alternative 2-Reduced Solar Energy Facility Site.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative paleontological resources impact, which are the same indicators used in EIR/EA Section 4.13 for the effects of the Alternative 2-Reduced Solar Energy Facility Site:

Indicator 1: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Impact Analysis

Cumulative development in the Imperial Valley portion of the Salton Trough physiographic province of Southern California has the potential to directly or indirectly destroy paleontological resources. Similar to the Proposed Action, there is a potential for paleontological resources on the Alternative 2-Reduced Solar Energy Facility site to be impacted during construction of the Alternative 2-Reduced Solar Energy Facility Site. However, with the implementation of Mitigation Measures PR1 through PR5, as identified in Section 4.13 of this EIR/EA, paleontological resource impacts would be reduced to a level less than significant under CEQA. As with the Alternative 2-Reduced Solar Energy Facility Site, cumulative projects would be required to provide mitigation for any impacts to paleontological resources; therefore, the Alternative 2-Reduced Solar Energy Facility Site would not contribute to a significant cumulative paleontological resources impact under CEQA.

5.2.3.14 Socioeconomics and Environmental Justice

A. Geographic Scope and Timeframe

Similar to the Proposed Action, the geographic scope of cumulative impacts related to socioeconomics and environmental justice is Imperial County for the Alternative 2-Reduced Solar Energy Facility Site.

B. Existing Conditions

The unemployment rates (not seasonally adjusted) for Imperial County, the State of California, and the United States for June 2010 were 27.6 percent, 12.2 percent, and 9.6 percent, respectively. Imperial County's unemployment rate substantially exceeds that of the State of California and the United States.

The three largest sectors with the largest employment in Imperial County are agriculture, government, trade, transportation and utilities. Like many other sectors in Imperial County, these three sectors have experienced job loss due to the recent downturn in the economy.

The Alternative 2-Reduced Solar Energy Facility Site is located within census tract that has predominately Hispanic or Latino ethnic composition of the overall population. The median household income in this census tract is $32,273. As such, this census tract is considered a low-income and minority neighborhood.

C. Effects of the Alternative 2-Reduced Solar Energy Facility Site

Similar to the Proposed Action, the Alternative 2-Reduced Solar Energy Facility Site would not trigger any other development that would place socioeconomic/environmental justice burdens on the County of Imperial and nearby cities.

The Alternative 2-Reduced Solar Energy Facility Site is expected to consist of 250 workers during the temporary construction phase. During operations and maintenance of the proposed facilities, approximately four fulltime personnel would be required. Some of the workers would be recruited locally and available through the existing labor pool, and some would be specialized technical workers from outside of the local area. Most workers are expected to stay in local hotels or rental housing units. Based on the available regional housing stock, there are anticipated to be more than enough vacant homes to support any project-related immigration under the Alternative 2-Reduced Solar Energy Facility Site. Thus, the construction of the Alternative 2-Reduced Solar Energy Facility Site would place a negligible, temporary demand on housing, which is not considered a significant impact under CEQA.

Imperial County predominately consists of minority and low-income individuals. However, the Alternative 2-Reduced Solar Energy Facility Site is considered a public benefit and would not result in environmental effects to the minority population residing within and surrounding the Imperial County area. The Alternative 2-Reduced Solar Energy Facility Site would not displace any residents or traverse an established community because the project would be located on agricultural land and within a designated utility corridor.

Similar to the Proposed Action, the Alternative 2-Reduced Solar Energy Facility Site will provide beneficial effects on the surrounding area by providing social and environmental benefits, promoting stable

electricity prices, reducing reliance on imported fuels, protecting public health, and benefits to communities with minority or low-income populations by creating local employment opportunities.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative socioeconomics and environmental justice impact, which are the same indicators used in EIR/EA Section 4.14 for the effects of the Alternative 2-Reduced Solar Energy Facility Site:

Indicator 1: *Induce substantial growth in an area, either directly or indirectly;*

Indicator 2: *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere;*

Indicator 3: *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere*;

Indicator 4: *Result in adverse effects or impacts that are appreciably more severe in magnitude or are predominately borne by any segment of the population, for example, household population with low income or a minority population in comparison with a population that is not low income or minority.*

Impact Analysis

The Alternative 2-Reduced Solar Energy Facility Site, in conjunction with other cumulative projects would benefit Imperial County in the short-term by creating local construction work, and in the long-term with work associated with the operation of projects. Like the Alternative 2-Reduced Solar Energy Facility Site, cumulative projects could have similar beneficial impacts because the construction and operation of the projects would provide local employment, which in turn could lower the unemployment rate in Imperial County. In addition, no substantial adverse socioeconomic impacts under CEQA on housing or the displacement of residents would occur with implementation of the Alternative 2-Reduced Solar Energy Facility Site due to the location of the project site on agricultural land and land designated for utility corridors. Therefore, the Alternative 2-Reduced Solar Energy Facility Site is anticipated to contribute to beneficial socioeconomic effects and would not contribute to any cumulative adverse socioeconomic impacts under CEQA in Imperial County.

5.2.3.15 Recreation

A. Geographic Scope and Timeframe

The geographic scope for the analysis of cumulative impacts related to recreation includes the local and regional recreation facilities in the County of Imperial.

B. Existing Conditions

As discussed in EIR/EA Section 3.15, the solar energy facility site is located on private land designated for agricultural use in the County of Imperial and is not designated or zoned for recreation use. The transmission line corridor would be located within an area currently designated by the BLM as Utility Corridor "N." The entire transmission line corridor is located within the Yuha Desert Recreation Lands. The CDCA Plan designates this area as Multiple-Use L (Limited Use), which is suitable for recreation "...which generally involves low to moderate use densities." The Limited Use designation also limits all motorized travel to designated routes. Based on the *Western Colorado Desert Routes of Travel Designations,* there are no open routes designated on the transmission line corridor site.

In addition, California State Parks administers several recreational areas located in the general vicinity of the overall project site.

C. Effects of the Alternative 2-Reduced Solar Energy Facility Site

Alternative 2-Reduced Solar Energy Facility would be on the same project site as the Proposed Action, but within a reduced size. Similar to the Proposed Action, the transmission line corridor would be developed within the designated Utility Corridor "N" and the proposed widening/use of a portion of an existing access road are located on existing BLM lands and would not preclude the use of adjacent BLM lands for OHV recreation. The Alternative 2-Reduced Solar Energy Facility Site involves widening an existing dirt road, which a portion of which traverses BLM lands for construction and operation access to the solar site. This road is designated as "open" and is therefore available for OHV use. The project would not preclude, or alter the continuation of this use. In addition, Alternative 2-Reduced Solar Energy Facility would not develop access roads that would create a corridor for OHV use.

With regards to the solar energy facility site and the portion of the access road located within private land, similar to the Proposed Action, Alternative 2-Reduced Solar Energy Facility would not increase the use of a existing recreational facility and does not the include the construction of a recreational facility. Therefore, similar to the Proposed Action, Alternative 2-Reduced Solar Energy Facility would not result in an impact under CEQA to recreation.

D. Cumulative Impact Analysis

CEQA Significance Thresholds/NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative recreation impact, which are the same indicators used in EIR/EA Section 4.15 for the effects of the Alternative 2-Reduced Solar Energy Facility Site:

Indicator 1: *Directly or indirectly disrupt recreation activities in established Federal, State, or local recreation areas and/or wilderness areas;*

Indicator 2: *Substantially reduce the scenic, biological, cultural, geologic, or other important factors that contribute to the value of Federal, State, local, or private recreational facilities or wilderness areas; and/or,*

Indicator 3: *Diminish the enjoyment of existing recreational opportunities.*

Indicator 4: *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; and/or,*

Indicator 5: *Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.*

Impact Analysis

Similar to the Proposed Action, the Alternative 2-Reduced Solar Energy Facility would not preclude the surrounding BLM lands to be used for recreational uses. These BLM lands would be able to continue recreational activities that are permitted within their specified use designations. Furthermore, the solar energy facility portion of the Alternative 2-Reduced Solar Energy Facility Site does not involve the construction of recreation facilities. The Alternative 2-Reduced Solar Energy Facility Site would not contain a residential component that would increase the use of an existing neighborhood or regional park or other recreational facilities such that substantial physical deterioration would occur. Therefore, Alternative 2-Reduced Solar Energy Facility Site would not result in a cumulative impact under CEQA to recreation.

5.2.3.16 Special Designations

A. Geographic Scope and Timeframe

The geographic scope for considering cumulative impacts on Special Designations areas is the Yuha Desert Area ACEC.

B. Existing Conditions

Similar to the Proposed Action, the Alternative 2-Reduced Solar Energy Facility Site does not have any special designations involving certain resources, including Wilderness Areas, donated lands, National Wild and Scenic Rivers, BLM designated range allotments or pasture for wildlife or livestock, and designated wilderness areas. However, the transmission line corridor portion of the Alternative 2-Reduced Solar Energy Facility Site is located within the Yuha Desert Area of Critical Environmental Concern under BLM jurisdiction.

C. Effects of the Proposed Action

The BLM manages all land uses within the ACEC in order to minimize impact to this sensitive area. Similar to the Proposed Action, the transmission line corridor portion of the Alternative 2-Reduced Solar Energy Facility Site is an allowable use under the CDCA, as the proposed ROW for the transmission line corridor falls within the CDCA designated "Utility Corridor N." The access road traverses BLM lands is an existing designated dirt access road and is not located within the CDCA. Proposed impacts to biological resources discussed in EIR/EA Section 4.12.2 are in conformance with the CDCA and maintains the integrity and intent of the Conservation Plan. Therefore, the Alternative 2-Reduced Solar Energy Facility Site would not conflict with the management goals of any special designation area.

D. Cumulative Impact Analysis

NEPA Indicators

Similar to the Proposed Action, the following indicators were used to analyze cumulative special designations impact, which are the same indicators used in EIR/EA Section 4.16 for the effects of the Alternative 2-Reduced Solar Energy Facility Site:

Indicator 1: Conflict with the management goals of any special designation area.

Impact Analysis

Similar to the Proposed Action, the transmission line corridor portion of the Alternative 2-Reduced Solar Energy Facility Site is an allowable use under the CDCA. The proposed impacts to resources are in conformance with the CDCA and maintains the integrity and intent of the Conservation Plan. Furthermore, the Alternative 2-Reduced Solar Energy Facility Site would not have impacts on Wilderness Areas, donated lands, National Wild and Scenic Rivers, BLM designated range allotments or pasture for wildlife or livestock, and designated wilderness areas. As such, the Alternative 2-Reduced Solar Energy Facility Site would not contribute to cumulative impacts on any resources within these special designations.

5.2.4 Alternative 3-No Action/No Project Alternative

Under the Alternative 3-No Action/No Project Alternative, the project site would not be developed with a solar energy facility; the transmission line corridor would not be installed on BLM lands; the existing access road traverses both BLM lands and private land would not be widened or used; and, the project site would remain agriculture land and undisturbed BLM lands. Therefore, the Alternative 3-No Action/No Project Alternative would not result in cumulative effects under CEQA.